THE LANCET.

A Journal of British and Foreign Medicine, Surgery, Obstetrics, Physiology, Chemistry, Pharmacology, Public Health, and News.

IN TWO VOLUMES ANNUALLY.

VOL. I. FOR 1888.

SIXTY-SIXTH YEAR.

EDITED BY THE PROPRIETORS:

THOMAS H. WAKLEY, F.R.C.S. ENG.,

AND

THOMAS WAKLEY, JUN., L.R.C.P. LOND.

LIBRARY OF CONGRESS CITY OF WASHINGTON

LONDON:

PUBLISHED BY THE REGISTERED PROPRIETORS, AT THE OFFICE OF "THE LANCET," 423, STRAND.

M DCCC LXXXVIII.

R31
.L9

Clinical Lecture

ON

PARALYSIS OF THE FIFTH CRANIAL NERVE.[1]

Delivered at King's College Hospital on Dec. 5th, 1887.

BY DAVID FERRIER, M.D., F.R.S.,

PHYSICIAN TO THE HOSPITAL.

GENTLEMEN,—I desire to call your attention to-day to a case of considerable interest, both from a clinical and physiological point of view. It is an instance of an affection occasionally met with, but still comparatively rare, being an uncomplicated case of paralysis of the fifth nerve, practically equivalent to a precise physiological experiment. And it has this advantage over an experiment on any of the lower animals in that, so far as subjective functions are concerned, we are able to obtain direct testimony as to the existence or absence of states of feeling, whereas in the lower animals we are obliged to infer these from external manifestations more or less intelligible. And it is astonishing to find, in respect to questions of this nature—e.g., the sense of taste,—how, apparently with the same facts before them, different observers have come to diametrically opposite conclusions. Let me first give you briefly the chief facts as to the previous history and present condition of the case which I have chosen as the subject of my remarks.

Abel S——, aged forty-eight, railway guard, was admitted into the Craven ward on November 25th, 1887. He stated that three years ago he was thrown out of a truck on which he was standing on to the ground, and rendered unconscious for about a quarter of an hour. By his fall he had received several cuts about the head and body, and was obliged in consequence of his injuries to remain off duty for about three months. He states that ever since the accident he has suffered from severe paroxysms of pain over the right side of the head and face. About nine months ago he began to attend the Middlesex Hospital as an out-patient, when he had some teeth drawn from the right upper jaw. No anæsthetic was administered, and yet he felt no pain during the operation. This was the first knowledge he had that he had loss of sensation of that side of his face. Six months ago he began to suffer from inflammation and impaired vision in the right eye, for which affection he has been undergoing treatment up to the present time. His general health has been otherwise good. He admits occasional intemperance and a slight attack of gonorrhœa when eighteen years old, but denies ever having had syphilis. The patient is a healthy-looking man, of a ruddy complexion. The right temporal region and the right cheek appear somewhat thinner than the left, and there is a slight drooping of the right upper eyelid. The ocular movements are normal, as also are the movements of the muscles of expression. He is unable to open his mouth widely, and when it is open the chin deviates very decidedly to the right side. He cannot move the lower jaw from side to side alternately, nor can he protrude the lower beyond the upper incisors. When he closes the jaws, the right temporal and masseter muscles do not become hard like those on the left, and a similar difference is observed in respect to the depressors of the lower jaw when he opens the mouth to its fullest extent. Faradic stimulation of the left temporal and masseter muscles causes instantaneous closure of the open mouth, whereas no effect is produced by faradisation of the same muscles on the right side with as strong a current as can be conveniently borne by the patient. The tongue is protruded straight, and both sides react equally to the faradic current. On examination of the palate it was found that there is a perforation to the left of the uvula which causes a slight deformity and deflection of the uvula to the left side, but the arches of the palate rise normally and equally during inspiration and phonation. There is complete anæsthesia and analgesia on the right side of the forehead and temporal region, the right eyelids and eyeball, the right side of the nose and right cheek, and anæsthesia, with perhaps slight sensibility to severe pinching, along the course of the lower jaw up to the middle line. There is also complete insensibility of the right nostril and the mucous membrane on the right side of the mouth as far back as the tonsil, and a similar condition over the whole of the right side of the tongue. There is also slight superficial ulceration of the mucous membrane of the inside of the cheek, and he says that he cannot feel his food when he chews it on the right side. Smell is slightly diminished in the right nostril; but he is able to recognise the smell of menthol, though less distinctly than with the left nostril. On examination of the right eye Professor MacHardy reported as follows:—The right cornea somewhat hazy; the right tension distinctly, though only slightly, greater than the left. Ophthalmoscopic examination reveals no change in either fundus. There is absolute anæsthesia of the right cornea and conjunctiva. The right pupil is almost universally adherent to a ring of inflammatory effusion, some two millimetres in diameter, in front of the lens. The action of atropine has failed to break down any of these adhesions. The patient is subject to severe paroxyms of pain in the right eye of a burning character, referred to the back of the eyeball. After examination of the ears, Professor Pritchard reported:—The hearing distance for a watch on the right is $\frac{1}{10}$, on the left $\frac{4}{10}$. After syringing and inflation with Politzer's bag, the condition as to hearing was: left $\frac{4}{10}$, right $\frac{1}{10}$. Tuning fork, medium C, on right mastoid O, left $1\frac{1}{2}+$; O equalling normal length of time. The high notes of Galton's whistle not heard; lower ones heard equally by both ears. Conclusion: Nerves of hearing fairly normal for age. Middle ears very slightly affected by old catarrh, and probably partly specific; right meatus partially blocked with wax. On removal, right equals left ear. On examination of the sense of taste on Nov. 29th, it was found that neither sugar, nor salt, nor citric acid, nor quinine was appreciated on the right anterior two-thirds of the tongue; whereas on the posterior third on the right side, as well as over the whole of the left side of the tongue, the taste of these substances was easily perceived. Perhaps the power of taste on the posterior third of the right side of the tongue was not so acute, relatively, as that of the left. On Dec. 1st the sensibility of the lower facial region, both externally and internally, had undergone some improvement; and the same was true as to the common sensibility and sense of taste on the right side of the tongue. The positive pole of the galvanic current was distinctly felt on the right side of the tongue, especially at the tip; less so further back. Quinine was not tasted on the anterior part of the right side of the tongue at all; other substances, such as citric acid, sugar, and salt, were now capable of being perceived on the right side, but less distinctly than on the left. A few days later tactile sensibility had almost completely returned in the lower facial region as well as on the right side of the tongue; and at this time sapid substances seemed to be tasted equally well on both sides. The area of anæsthesia in the other parts of the face was also receding, but still very marked in the region of distribution of the first and second divisions of the fifth, and absolute in the right side of the palate and upper jaw and mucous membrane adjoining. Sensation has continued to improve from day to day on the right side, but the eye still remains absolutely anæsthetic, and continues to be the seat of severe pain. The muscles of mastication remain in the same state of paralysis as at first.

The symptoms in the case which I have just read are such as can be only caused by some lesion which has impaired the continuity of the trunk of the fifth nerve, both sensory and motor divisions—at first absolutely, and now in process of being recovered from. Recovery has first taken place in the third division of the nerve. In favour of the peripheral nature of the lesion is the atrophy with loss of faradic contractility of the muscles of mastication. For though, theoretically, a similar condition might be caused by destruction of the motor and sensory nuclei of this nerve, such a lesion could not exist without causing other and far-reaching disturbances, which are here entirely absent. What has been the exact cause of the lesion is not altogether free from doubt. The fifth nerve is not unfrequently implicated in tumours, inflammations, syphilitic

[1] From notes [revised and amended] by Sir Hugh Beevor, M.B., Medical Registrar.

and otherwise, and injuries affecting the middle fossa of the skull. As a rule, the lesion which destroys the fifth also implicates other of the adjoining cranial nerves. In favour of the traumatic origin in this case is the fact that the symptoms began directly after the receipt of a severe injury to the head; and that such an injury may cause paralysis of the fifth is proved by one or two similar instances on record. A typical one of the kind has been reported by Rigler, quoted by Romberg. There is no evidence of intra-cranial tumour in this case; but syphilis, such a fertile source of disease of the cranial nerves, must be considered as a possible cause, even though denied by the patient, and this more particularly on account of the existence of a suspicious perforation of the soft palate. It may be that both factors have been at work—viz., a predisposition induced by syphilis, with the traumatic injury as the exciting cause.

Considering the complete paralysis of all the muscles supplied by the fifth nerve, which are accessible to direct investigation, it is probable that the whole of the motor division has been destroyed. Therefore the case has an important bearing on the question of the innervation of certain other muscles which are supposed to derive their motor supply directly or indirectly from the fifth. It is usually taught that the motor division of the fifth nerve supplies the azygos uvulæ, as well as the tensor palati and the tensor tympani. If this were so, it would have been reasonable to expect indications of abnormal position or action of the palate. In particular, the right arch of the palate should have been higher than the left, owing to the unantagonised action of the levator. The perforation on the left side of the palate made it difficult to determine what position the uvula would have assumed had this not existed; but no abnormality in the position or action of the soft palate could be detected.

This case, therefore, lends no support to the usually accepted doctrines respecting the innervation of the palate by the fifth nerve; nor are these in accordance with the facts of recent experimental research. Vulpian[2] has found in dogs that no movements are induced in the palate by irritation of the roots either of the fifth or facial nerve. But, on the other hand, movements of the soft palate are produced by irritation of the spinal accessory or accessorio-vagus. That the spinal accessory is a motor, if not the only motor, nerve of the palate is also supported by similar experiments by Beevor and Horsley on monkeys. It is clear, therefore, that the whole subject of the motor innervation of the palate, and the current theories respecting the affections of the palate, in relation to disease of the fifth and facial nerves, require reconsideration and revision. Similarly with regard to the tensor tympani. It is said by Lucae that when the tensor tympani is paralysed there is in the affected ear abnormal acuteness to high notes and subjective deep roaring sounds. Neither of these conditions exists in this case, and we are therefore bound to conclude (supposing the whole of the motor division to be destroyed) that the tensor tympani is not supplied by the fifth nerve, or that the symptoms described by Lucae are not necessarily present in such cases.

You will remember that the sense of smell was somewhat defective in the right nostril. But this is to be attributed not to any direct lesion of the olfactory nerve proper, but to the affection of the mucous membrane of the nostril associated with total loss of common sensibility. The condition is somewhat like that which led Magendie to regard the fifth nerve, and not the first, as the true nerve of smell.

The state of the right eye is one which deserves special consideration. There are signs of old keratitis, general vascular congestion, and adhesions of the iris which do not give way to repeated applications of atropine. From notes obtained by Professor McHardy from Mr. Lang, under whose care the patient was for some time, the keratitis undoubtedly preceded the iritis. At the time of his first examination there were no traces of previous iritis; and this is an important fact which serves to show that the iritis in this case is not a relapse of an antecedent, probably specific, iritis, but a further stage of the same affection which manifested itself first in inflammation of the cornea. The condition is therefore more than probably an example of what is termed neuro-paralytic ophthalmia—an affection which has been frequently observed, both in animals and in man, as the result of lesion of the fifth nerve. As to the proximate causation of this ophthalmia, several theories have been advanced. According to some, the inflammation of the eye is the result merely of the anæsthesia of the cornea, and due to external influences acting on a part unaware of, and therefore unable to guard against, the irritation to which it is liable. But this theory is opposed by many facts. The eyeball may be perfectly insensible, as in cases of cerebral hemi-anæsthesia, and yet no inflammation occur. And similar inflammation of the eyeball has been known to occur in cases of lesions of the fifth nerve insufficient to produce complete loss of sensibility. Nor even when the anæsthesia from lesion of the fifth has been complete does inflammation necessarily ensue. Thus, a case has been reported by Mr. Hutchinson,[3] in which, notwithstanding entire insensibility of the eyeball from paralysis of the fifth nerve, no inflammation of the eye occurred during the period of observation (twelve weeks) that had elapsed from the commencement of the affection. On the other hand, in some cases panophthalmitis occurs with such rapidity after lesion of the fifth as to be comparable only to the acute bedsore which is seen in connexion with certain forms of spinal and cerebral disease. Nor can the inflammation be explained by mere paralytic dilatation of the bloodvessels of the eyeball. Indeed, it has been shown by Sinitzin that not only does the paralytic dilatation of the vessels of the eyeball, caused by the section of the cervical sympathetic, not induce ophthalmia, but actually prevents the ophthalmia which would otherwise result from section of the fifth. We are obliged, therefore, to regard the neuro-paralytic ophthalmia as dependent upon a direct influence of the ophthalmic division of the fifth nerve on the nutrition of the eyeball itself, altogether apart from vascular or other conditions. The inflammation of the eye after lesion of the fifth nerve is, in fact, generally appealed to as a proof of the existence of special trophic nerves. These are supposed to run in the inner side of the nerve, inasmuch as lesions in this region are more apt to result in the trophic disturbances described. I am of opinion that the direct influence of the nervous system on the nutrition of the parts to which they are distributed has been abundantly demonstrated. But I am not prepared to admit that there are any trophic nerves, as such, distinct from those which minister to motion, secretion, or sensibility. Trophic disturbances are well known in connexion with lesions of sensory nerves in various parts of the body. But the facts are in favour of the theory that these are in all cases associated with irritative or inflammatory lesions of the nerves in question. Partial injuries of a nerve are more apt to cause irritation than complete section; and inflammatory disturbances are certainly more frequently seen in such cases than in those in which the nerve has been completely severed. There is evidence in this case that the fifth nerve is the seat of acute irritation. We have, in fact, a typical example of what is termed anæsthesia dolorosa. The patient is subject to continual paroxysmal darting pains in the region of distribution of all three branches, and particularly in the eyeball, which he describes as being the seat of intense burning pain in the back part. Indeed, you can easily see that the patient's account is correct, for he is constantly in the habit of starting suddenly and wincing each time a paroxysm of pain shoots through his eye and the right side of his head and face. This condition has lasted throughout the whole course of the affection. We have therefore good reason for supposing that the neuro-paralytic ophthalmia consequent on lesions of the fifth nerve is, as in the case of the other sensory nerves, specially caused by irritative or inflammatory conditions, and not by the mere cutting off of the parts from the influence of special trophic centres. For if the latter were the case, neuro-paralytic ophthalmia ought to result invariably from complete paralysis of the fifth; whereas Hutchinson's case, as well as others that might be quoted, is distinctly contradictory of such a hypothesis.

We come now to the consideration of a much-debated question on which this case has an important bearing—viz., the origin and course of the nerves which minister to the sense of taste in the anterior two-thirds of the tongue. That the glosso-pharyngeal is the special nerve of taste of the posterior third of the tongue and neighbouring regions has been abundantly proved both by the facts of disease and experiments on the lower animals, and it has been

[2] Comptes Rendus, cili., 1886.

[3] Ophthalmic Hospital Reports, vol. iv., p. 191.

found that the circumvallate papillæ undergo atrophy when the glosso-pharyngeal nerves have been divided. A curious case, however, has been recorded by Gowers[4] of anæsthesia of the fifth nerve (supposed to have been caused by a lesion near the pons), in which the sense of taste was abolished, not only in the anterior two-thirds, but also in the posterior third of the tongue and neighbouring region—a case which would seem to show that all the nerves of taste may occasionally run in the trigeminal nerve. If we assume it as proved that the loss of taste over the whole of one side of the tongue was due to uncomplicated lesion of the fifth nerve in this case, we must regard it as certainly an exception to the ordinary rule. But while it is certain that in cases of paralysis of the fifth nerve there is loss of common sensibility in the right side of the tongue and mouth, and in a large proportion of cases, in addition to the anæsthesia of the mouth and tongue, also complete loss of taste in the anterior two-thirds, there are other cases on record which seem to show that this is not universal. Even those who hold with Erb and others that the nerves of taste of the anterior two-thirds of the tongue ultimately join the trunk of the fifth nerve, are nevertheless of opinion that the lingual division of the fifth nerve does not contain gustatory fibres until after its junction with the chorda tympani. And it is believed that the chorda tympani is, in reality, the path of the gustatory nerves in question. In favour of this view, many facts, both of experiment and disease, have been adduced. Section of the chorda tympani in animals has been said by Bernard, Lussana, and others to impair, if not entirely to abolish, taste in the anterior two-thirds of the tongue. Bernard, however, was of opinion that this was only an indirect consequence of the paralysis of the papillæ induced by the lesion. But this explanation has not been adopted by all, and Schiff, among others, holds that the chorda tympani in reality contains afferent gustatory fibres. In favour also of the relation of the chorda tympani to the sense of taste in the anterior two-thirds of the tongue are the facts of facial paralysis—more particularly when the lesion—as in disease of the middle ear—is such as to impair the continuity of the facial nerve between the geniculate ganglion and the origin of the chorda tympani. Many such cases have been reported, so that we can scarcely question the accuracy of the observations. You will then naturally ask how the fibres of the chorda tympani ultimately join the trunk of the fifth nerve? The path indicated by Schiff certainly seems of a very roundabout character. You will be able to follow it in the diagram before you. Schiff believes that these fibres pass from the geniculate ganglion through the greater superficial petrosal nerve to Meckel's ganglion, and thence to the infra-orbital or second division of the fifth, and so to the general trunk of the nerve; while other fibres, perhaps, pass through the lesser superficial petrosal to the otic ganglion, and thence to the lingual nerve or third division of the fifth. If Schiff's views are correct, it ought to follow that extirpation of Meckel's ganglion, or section of the second division at the foramen rotundum, should cause abolition, or at least considerable impairment of the sense of taste in the anterior two-thirds of the tongue. But this has been denied by Prevost, Alcock, and other experimenters on the lower animals, and it is also contradicted by cases in which the second division of the fifth has been divided and Meckel's ganglion extirpated for obstinate facial neuralgia. In illustration of this I may mention a case recently under the care of Dr. Hughlings Jackson and myself at the National Hospital for the Paralysed and Epileptic. In this patient the second division of the fifth was divided just outside the foramen rotundum, Meckel's ganglion more or less completely extirpated, and subsequently some of the descending palatine nerves also divided. Yet in this patient there was no affection of taste on that side of the tongue. In corroboration also of this, it may be stated that in the patient before us at the time when taste and tactile sensibility began to return in the anterior two-thirds of the tongue, there was still almost absolute anæsthesia of the first and second divisions of the nerve, indicating that conduction was still blocked in these branches—a condition practically equivalent to experimental section. There would still, however, according to Schiff's view, be a way open from the chorda tympani to the otic ganglion, and so into the inferior division of the fifth. The facts of this case would seem to require either this route for the gustatory fibres to the anterior two-thirds of the tongue, or a direct course in the lingual nerve itself. Lussana, Duval, Vulpian, and others hold that the course of the gustatory fibres of the anterior two-thirds of the tongue is through the chorda tympani, and thence directly into the nerve of Wrisberg or pars intermedia of the seventh nerve. The case before us is not in harmony with this view; for there is no indication of affection either of the portio dura or of the portio mollis of the seventh nerve. Nor does it appear that lesions of the seventh nerve between its point of origin and its entry into the internal auditory meatus cause any impairment of taste in the anterior two-thirds of the tongue. And yet we can scarcely suppose that the pars intermedia would escape when the other two divisions have been destroyed. There is still another view respecting the course of the gustatory nerves of the anterior two-thirds of the tongue, which has found considerable acceptance among physiologists. This is the view propounded by Carl—viz., that all the gustatory fibres are derived primarily from the glosso-pharyngeal:—those of the base of the tongue directly, and those of the anterior two-thirds of the tongue indirectly, through the anastomoses which the tympanic or Jacobson's nerve forms with the facial and with the lingual through the otic ganglion. This view, which seems to be supported by the facts of his own case, has the merit of simplicity, inasmuch as all the nerves of taste are thus brought ultimately to one nucleus: but it is not in harmony with the facts observable in this patient, or in the other recorded cases of loss of taste in the anterior two-thirds of the tongue from lesion of the fifth nerve alone, apart from all discoverable affection of the glosso-pharyngeal nerve. Nor does it seem necessary, though the nerves of taste all proceed ultimately to one cerebral centre, that the primary nuclei should be united; for the distinctness of the medullary nuclei may be subservient to different physiological combinations in relation to the secretion of saliva, the movements of the tongue, and the act of deglutition. Such are a few of the considerations suggested by the case before us; and you will not fail to recognise that there are still many questions which demand further careful investigation when similar instances present themselves before you.

[*Addendum note.*—December 23rd: Under the influence of iodide of potassium in twenty-grain doses, three times a day, and faradisation of the right side of the face, the patient has continued steadily to improve, and the area of total anæsthesia has become circumscribed to the eyeball and eyelids. Everywhere else tactile sensibility has returned more or less completely, but difficulty of localisation and a considerable amount of analgesia remain, especially in the frontal region. Paroxysmal pains still shoot through the eyeball, but the eye is less congested, and there are some indications that the adhesions of the margins of the pupil are giving way, partially at least, to the daily use of atropine. Should they still resist, the question will arise as to the advisability of performing iridectomy; but my colleague, Professor MacHardy, thinks it better to wait for the present.]

[4] Journal of Physiology, vol. iii.

Clinical Lecture
ON
CASES OF SARCOMA.

By CHRISTOPHER HEATH, F.R.C.S.,
HOLME PROFESSOR OF CLINICAL SURGERY IN UNIVERSITY COLLEGE, LONDON, AND SURGEON TO UNIVERSITY COLLEGE HOSPITAL.

GENTLEMEN,—As I have had occasion recently to operate upon some remarkable cases of sarcoma, I take the opportunity of making a few remarks upon this form of disease. And, first, what is meant nowadays by sarcoma? Modern pathologists regard as examples of sarcoma tumours consisting of embryonic cells embedded in a matrix, but not contained in alveoli like the true cancers, the bloodvessels running between the cells themselves. This is all very well when the tumours are removed and submitted to microscopical examination, but it will be necessary for you to make a diagnosis, if possible, before employing the knife, in order to guide you as to the treatment to be employed.

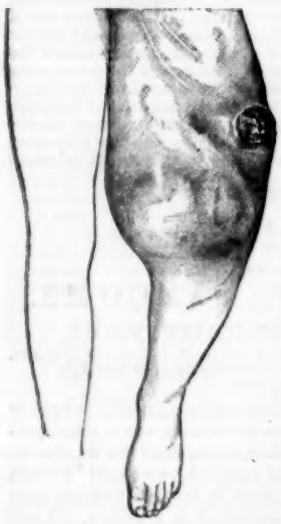
Clinically, sarcomata differ very much from cancers,

although some of them are little less malignant. They occur in young or middle-aged patients, and their rate of growth varies directly with their malignancy. Whilst more apt to develop cysts than cancers, the tendency of sarcomata to involve the lymphatic system is much smaller, except in the case of the melanotic sarcoma, in which the glands are early and extensively involved. The sarcomata affecting bones, of which we have recently had examples, may be best divided into periosteal and central, of which the periosteal is the more serious, both as regards rapidity of growth and infiltration of surrounding structures. The periosteal may be spindle-celled, round-celled, or ossifying; whilst the central may be spindle-celled, round-celled, or myeloid, which last is undoubtedly the least malignant of all. The articular ends of the long bones are the favourite seats of all these forms of sarcoma of bone, which affect also very commonly the bones of the face, and especially the jaws. The recognition of a periosteal tumour of bone is comparatively easy, as the growth can be made out with care almost as soon as the patient's attention is called to the part by the pain, which is usually a prominent symptom; and the way in which the periosteal tumour creeps up the shaft of the bone is very characteristic. The central sarcomata are less defined; but they have very commonly the peculiar crackling of thin bone over them, and not infrequently present a very distinct pulsation. Early removal before the system has become infected by secondary deposits in internal organs is the only treatment possible in sarcoma. In the cases of sarcoma of bone the periosteal variety requires much freer removal than the endosteal, on account of its tendency to infiltrate surrounding tissues; hence amputation, if possible at or above the next joint, offers the only prospect of permanent relief.

The following is a summary of a case of tumour of the thigh, which I recently amputated at the hip-joint successfully, and I would especially direct your attention to the treatment of the patient immediately before, during, and after the operation, because I think the recovery of the girl depended a good deal upon it; and, without laying too much stress upon rapidity of operating, it is, I think, a mistake to run any risk of loss of life by undue deliberation and consequent exposure of the patient.

CASE I (from notes by Mr. Pollard, surgical registrar).—E. M. J——, a girl aged sixteen, was admitted under my care on Sept. 26th, 1887. She had enjoyed good health until six months previously, when a swelling was noticed in the middle of her left thigh. This swelling rapidly extended upwards and downwards. The patient was seen by myself nine weeks before admission, and amputation was advised, but the patient's friends preferred to try the powers of a herbalist, who treated the disease for about six weeks. During that time the growth increased very rapidly in size, and became very painful. For three weeks the patient had been confined to bed. On admission the whole of the left thigh was enormously enlarged. (Fig. 1.) The superficial veins stood out as blue cords, some of which measured one-third of an inch across. The thigh was very tense, but elastic, and in some places distinct fluctuation could be obtained. At the upper limit of the growth, close to the groin, the circumference of the thigh measured twenty-three inches; at the middle and lower end of the growth it measured twenty-five inches. The corresponding measurements of the sound thigh were ten and a half, eleven and a half, and fourteen inches respectively. The patient evidently suffered most severely from pain, which was, however, almost completely controlled by an injection of four minims (0·4 gr.) of morphia night and morning. The weight of the limb was so great that the patient was unable to move it. Her temperature ranged between 100° and 103·2°. There was some healthy skin in front just below the groin, and the buttock was not implicated by the disease, so I determined to remove the growth by disarticulating at the hip joint. This was done on the ninth day after admission. For two hours and a quarter before the operation the limb was supported at an angle of 110° with the body, so as to allow as much blood as possible to drain away from the limb; and half an hour before the operation four ounces of brandy were injected into the rectum. Owing to the high extension of the growth on the anterior surface of the limb it was only possible to make a short flap on that aspect. The circulation was controlled by a Signorini's tourniquet applied to the aorta. The anterior flap was cut from without inwards. It was composed of little more than skin and fat. The knife was rapidly sunk through the muscles, and the capsule opened. As the femoral vessels were divided and secured, a gush of blood took place, mainly from the distal side of the section. After the head of the bone had been disarticulated, and the muscles severed from the trochanter, a long and fleshy posterior flap was cut from within outwards. Notwithstanding the delay to secure vessels, and the inability to manipulate the thigh forcibly, owing to the femur being broken, the limb was detached in less than three minutes. There was very little loss of blood. The vessels were secured with catgut ligatures; the flaps were adjusted with silver and catgut sutures. Two drainage tubes were inserted between the flaps. The stump was dressed with iodoform powder and iodoform and salicylic wools. During the operation two ounces, and at its close four ounces, of brandy were injected into the rectum; a total of half a pint of brandy was given per rectum in two hours. As soon as the limb was removed, the remaining one was raised to an angle of 120° with the body, and kept in that position for eighteen hours. The head was not supported by a pillow, and the foot of the bed was propped up. The patient showed no signs of consciousness for two hours and a half after the operation. The pulse was very rapid (120 to 140 per minute), but responded to frequent small doses of brandy. The dressing was changed five hours and a half after the amputation, as it was soiled with fæces. The inner half of the wound was found soiled. It was washed with carbolic acid lotion (1 in 30) and solution of perchloride of mercury (1 in 500), and re-dressed. The inner part of the dressing was sealed down with collodion. By this time the patient was sensible, quiet, and warm. The stump was dressed on the second, fifth, sixth, ninth, tenth, and twelfth days after the operation. The drainage tubes were removed on the fifth day. The temperature rose to 103° on the second day, then sank below 101°, and reached the normal on the sixth day. It afterwards ranged between the normal and 100·4°. On the twelfth day a quantity of pus was found bagging in the flaps. The inner part of the wound had healed, but union at the outer part had failed. On the sixteenth day all the stitches were removed and the flaps were supported by strips of strapping. After the twelfth the wound was dressed daily. On the twenty-fifth day the patient got up, but the flaps were not then healed. She left the hospital on the forty-second day after the operation. After the amputation the patient's condition was much improved. Before it she suffered severe pain, and was quite helpless in bed owing to the weight of the tumour; after it the pain soon subsided, and in less than a month the patient left her bed. On examination of the parts removed, it was found that the growth was entirely got rid of. The great size of the latter was due largely to the presence of three cysts, which together contained ten pints of blood-stained fluid. The growth was a spindle-celled sarcoma, which had commenced centrally in the shaft of the femur. In some places the tumour was covered with plates of bone, but over the greater part of its surface the bone had entirely disappeared. The upper and lower ends of the femur were surrounded by the new growth, and the bone was broken at about the junction of the middle with the upper and lower thirds.

FIG. 1.



In the week following that in which I amputated at the hip you saw me amputate at the shoulder joint of a man whose history was remarkable, inasmuch as he was unaware of anything wrong with his arm until the bone broke on a slight exertion. The following was his history.

CASE 2.—J. R——, a man, aged thirty-five, was admitted on Oct. 8th, 1887. There was no family history of new growths, and his parents had reached old age. He was a carpenter, and had frequently been struck on the left shoulder by pieces of falling timber, but he had never sustained any severe injury of it. About five months ago he noticed some enlargement of the upper part of his right arm. He was able to continue his work, but with some difficulty, owing to pain, until the day of admission, when he raised his arm to strike one of his children. His arm then dropped to his side. The right shoulder and upper arm were much swollen, and manipulation of the limb produced crepitus and increased mobility about the insertion of the deltoid muscle. There were two well-marked swellings in connexion with the upper part of the shaft of the humerus, which might have been mistaken for the two ends of the broken fragments overlapping one another to the extent of two inches, had it not been that there was no shortening of the total length of the limb. It appeared evident, therefore, that the swellings were due to the presence of a new growth, which would also afford an explanation of the occurrence of a fracture from slight muscular action only. On the fourth day after admission I raised a deltoid flap and verified the diagnosis of new growth. I then disarticulated the head of the humerus and cut the inner flap from within outwards. The vessels were quickly secured and tied. Iodoform powder was dusted into the wound, and the edges of the latter adjusted with sutures. One drainage tube was inserted at the posterior angle of the wound, and a dressing of salicylic wool was bandaged on. During the operation an ounce of brandy was injected into the rectum. After the operation the patient was very collapsed. Ten minims of ether were injected beneath the skin, and two drachms of brandy were ordered every half-hour. On the day after the amputation the patient had recovered from the shock; he was still weak, but felt fairly comfortable. On the second day the temperature reached 101°; it then fell, and on and after the seventh it was about normal. The dressing was changed every second or third day. The wound at first appeared to be healing without suppuration, and on the sixth day a very small piece of drainage tube was employed. On the tenth suppuration had occurred, and the pus did not escape freely until a stitch was removed and a tube placed between the flaps. After the last date the progress towards recovery was continuous, and on the twenty-sixth day after the amputation the stump was nearly healed. The growth involved the anterior and inner aspects of the humerus. Its upper limit was just below the neck of the bone, and its lower just about the insertion of the deltoid muscle. There was an oblique fracture of the humerus, which started at the inner side of the surgical neck of the bone, and passed downwards and outwards to the lowest point of the attachment of the deltoid. The growth was about the size of an orange; its surface was nodulated and hard; its microscopical structure was that of a spindle-celled sarcoma.

Both these cases were examples of spindle-celled sarcoma, and although the whole of the apparent disease has been removed it is too early to pronounce positively as to future immunity, notwithstanding the complete removal of the bone involved. In the case of a girl whose thigh I amputated last summer I think we may take a hopeful view of her future, because a section of a tumour showed ossification to be in progress; this I believe to be a favourable circumstance, as I shall show in another remarkable case which was in this hospital some years ago.

CASE 3.—B. B——, a girl aged eighteen, was admitted on June 2nd, 1887. She stated that about four years ago she first noticed a painful swelling of the lower part of her right thigh. The swelling steadily increased, and ten months ago the patient came to the hospital, where she was treated as an out-patient with lotions and blisters, but without obtaining any relief. The increase in size still continued, and on admission to the wards the swelling involved the lower third of the shaft of the femur and ended about two inches and a half above the lower articular surface. The extent of the growth on the anterior surface of the femur was four inches and a half. The circumferential measurement of the thigh opposite the middle of the growth was an inch more than at the corresponding part of the other limb. The femoral glands were not enlarged, and no signs of growth in the lungs could be detected. On June 15th an incision was made over the outer surface of the growth on the femur. A portion of the growth was removed by the trephine, and, as it appeared to be sarcomatous, the limb was amputated at the junction of the middle and lower thirds. The vessels were ligatured with catgut, and the flaps united with silver wire sutures, with intermediate ones of catgut. One large tube was placed across between the flaps, and a dressing of iodoform powder and salicylic wool applied. The temperature reached 101° on the second day after the amputation. It then fell to normal, but rose to 108° and 102° on two or three subsequent occasions. The flaps united well. The tube was entirely removed on the tenth day after the amputation, and all the stitches on the nineteenth day after. The patient was discharged on the forty-fourth day. The growth almost surrounded four inches and a half of the lower third of the femur. It was periosteal. The base of it was composed of very dense bone, which was continuous with that of the shaft of the bone. The depth of the growth from the surface to the medullary canal was an inch and a half. Its periosteal surface was covered for a depth ranging between a quarter and half an inch with soft glistening tissue, which had a fibro-cartilaginous appearance, and into this rays of dense bone extended irregularly. The microscope showed the growth to be a mixed round and spindle-celled sarcoma, which was undergoing chondrification and ossification. This patient was seen on Oct. 16th, 1887. She was quite well, and there was no sign of recurrence in the stump.

I have taken some trouble to hunt up the patients upon whom I have operated for sarcoma, because I think erroneous deductions as to the fatality of many of these cases have been drawn by those who have collected only a small number of cases. I wish, therefore, to publish all I can, with a view to arriving at clearer opinions founded upon sufficient data. The following is a case in which the patient died two years after the operation, but we could not ascertain whether there was recurrence or not.

CASE 4.—R. H——, a woman aged fifty-eight, was admitted on Feb. 5th, 1884. She had noticed a swelling of her right thigh for ten months. On admission the growth occupied the middle two-thirds of the limb; it enveloped the front, the outer, and half of the inner and posterior aspects of the femur. The tumour was firm except in front, where there were two rounded fluctuating projections. The skin was shiny and slightly discoloured, and large veins coursed over the growth. The circumference of the right thigh measured seven inches and a half more than that of the left. The lymphatic glands in the groin were not enlarged. The tumour was aspirated, and two ounces of dark blood-stained fluid were withdrawn. On the day after admission the thigh was amputated just below the trochanters. An anterior flap of skin and fat was cut and raised. The muscles were divided transversely down to the bone, and the latter was sawn. A posterior flap was then cut from within outwards. Shortly before the operation three ounces of brandy and three ounces of water were injected into the colon. The pulse remained good during the operation, but it became very weak afterwards. Frequent small doses of brandy were given during the following six hours. The urine was drawn off by catheter every six hours. The flaps united by first intention, except where the tube was placed. The tube was removed on the twentieth day after the operation, and the stump appeared to be healed three days later. The temperature kept normal from the ninth day to the twenty-sixth, when it rose to 100°, and four days later to 101°. On the thirty-third day a little discharge escaped from between the flaps, and so a tube was placed at the inner end. The temperature then became normal. The patient was discharged on the thirty-eighth day after the operation. The tumour was growing in the rectus muscle, being limited in front and behind by the fascial sheath of the same. Along the outer surface of the femur, in the upper third of the part removed, the tumour approached very close to the bone, and here the latter was eroded. The growth was a myxo-sarcoma (spindle-celled), and enclosed one large and two small cavities containing mucoid material. This patient died in April, 1886.

I now come to a remarkable case of sarcoma of the arm and shoulder, which was under my care in 1883, and whose appearance is shown in Fig. 2.

CASE 5.—The patient was sixteen years old, and the swelling, which had been noticed two years, followed a fall. The tumour involved the upper part of the humerus and scapula, and on July 4th, 1883, I removed the whole of the upper limb with the scapula and outer third of the clavicle.

As the case has been already published,[1] I need not give all the details, but it will be sufficient to say that the patient made a thoroughly good recovery, and on his discharge

FIG. 2.

presented the appearance shown in Fig. 3. The growth was a spindle-celled sarcoma undergoing ossification, and when I brought the case before one of the Medical Societies, I was very positively assured that the disease would certainly return and kill the patient. Return it did: once seven months and a half after the operation, when I removed a small nodule from the cicatrix; and again two years and a half after the original operation, when I cut a mass out of the pectoral muscle. That is now two years ago, and the patient is, as I have recently ascertained, now in perfectly good health. This bears out what I said before in connexion with Case 3, that cases of ossifying sarcoma are more favourable than others.

FIG. 3.

I now show you two living patients whom I have managed to bring here to-day to illustrate two points: the first is the absolute immunity which follows thorough removal of myeloid or giant-celled sarcomata; and the second, the fact that sarcoma of muscle does not always make the rapid and fatal progress which is laid down by some authorities.

CASE 6.—J. S——, a woman aged thirty, was admitted under my care on October 3rd, 1879. She had often suffered from rheumatic swelling of her joints, and about nine months before admission she experienced great pain in her left shoulder, which also became much swollen. The left shoulder was found much enlarged, owing to a tense elastic swelling; the skin over it was hot and a little red. Movements at the joint were restricted and very painful. The patient was discharged a fortnight after admission, and after three months' absence she returned. The swelling was much greater; the skin was red and hot, and the superficial veins were distended; the swelling extended from just above the insertion of the deltoid muscle below to the acromion and coracoid processes above. It appeared to be due to a new growth, and on manipulation, with the aid of an anæsthetic, the humerus was found to be broken at the lower end of the growth. On January 20th, 1880, the limb was amputated at the shoulder joint by the oval method, and a few small pieces of growth, apparently in the subscapularis muscle, were cut away with scissors. The vessels were secured with catgut ligatures, the flaps were united with wire sutures, a long drainage tube was passed through the wound, and a carbolic gauze dressing was applied. The temperature reached 100·6° on the third day, 101·4° on the sixth, and ranged between the normal and 100·2° until the eighteenth day after the amputation, and then remained normal. The wound healed well, though not completely by first intention. The drainage tube was removed on the thirteenth day, and the patient was discharged on the thirty-seventh day after the operation. A tumour about the size of a large orange replaced the head of the humerus, and the shaft of the bone was broken obliquely about an inch below its head. The growth contained a number of blood cysts, and spicules of bone could be felt here and there in its substance. The microscopical examination of the growth proved it to be a myeloid sarcoma. This patient was seen in October, 1887. She was in good health, and there were no signs of recurrence.

The last patient (Case 7) is, as you see, a well-grown girl of eighteen, who has a mass in the adductor muscles of the thigh, but otherwise is in good health, and yet four years ago I abandoned her case as hopeless after two extensive operations. The following are the notes of her case.

CASE 7.—A. K——, a girl aged fourteen, was admitted on Oct. 15th, 1883. She had sustained an injury to the inner side of the left thigh eighteen months previously. This was followed by the formation of a hard lump as big as a small apple, which disappeared in about a month after being painted with iodine. Six months ago a tumour appeared in the same situation. It did not attract attention till it reached the size of an orange. Iodine was again applied, and the tumour was thought to diminish in size. On admission there was on the inner side of the thigh a large pyriform mass as big as a large pear, and situated on the inner side of the thigh, about an inch and a half from the body of the pubes. The mass was freely movable upon the subjacent structures, and the skin moved freely over it. Neither the femoral nor inguinal glands were enlarged. On the second day after admission the tumour was exposed and incised, and found to be a sarcoma. It extended deeply into the limb, and involved the muscular substance of the adductor longus, gracilis, and pectineus. The growth was removed in three portions, and at one time it appeared that its removal would necessitate amputation at the hip joint. The patient was very faint, and a hypodermic injection of ether was given; an enema of a pint of water and three ounces of brandy was thrown into the colon. Four vessels were ligatured; a large drainage tube was inserted in the wound, and the latter closed with sutures. An antiseptic dressing was applied. The patient was considerably collapsed after the operation, the temperature being 96·2° two hours after. Frequent small doses of brandy were administered. An abundant discharge from the wound necessitated a change of the dressings at the end of three hours. The day after the operation the temperature rose to 102·2° at 7 P.M., and at the same hour on the second day after the operation it was 101·6°. During the next three days it varied between 100° and 101°, and fell to normal by the tenth day, and remained so afterwards. The discharge from the wound was offensive on the fifth day; on the sixth a quantity of offensive pus was found in the wound. The wound was syringed out with carbolic lotion, and the sutures in the centre of the wound were removed. On the ninth day the wound was gaping, and all the sutures had cut out. The wound gradually healed from below, and the patient was discharged on the thirty-second day. On examination the harder parts of the growth were found to contain bundles of connective tissue and well-defined bloodvessels; other parts were homogeneous and composed of spindle-shaped and oval cells only. She was readmitted five months later, and stated that the wound had healed about a month after she left the hospital. Three or four weeks after the wound had healed she noticed a lump on the scar. On readmission a firm tumour between the pelvis and the upper part of the cicatrix was discovered to be adherent to the adductor muscles. The growth was exposed by an angular incision and a triangular flap of skin reflected downwards. The tumour was then peeled off the pubic ramus and dissected from the adductor muscles, but the growth could not be completely removed owing to its proximity to the femoral vessels. The tumour was found to

[1] British Medical Journal, July 10th, 1886.

be a fibro-sarcoma, like the original growth. The temperature was 102° the first two days after the operation, and varied between 100° and 101° till the fourteenth day, when it fell to normal. The wound suppurated freely, and finally broke open. It was granulating healthily on the nineteenth day after the operation, when the patient was discharged.

ON INTERMITTENT, RECURRING, OR SO-CALLED "CYCLICAL" ALBUMINURIA.

BY GEORGE JOHNSON, M.D., F.R.S.,
EMERITUS PROFESSOR OF CLINICAL MEDICINE, CONSULTING PHYSICIAN TO KING'S COLLEGE HOSPITAL.

IT is a well-known fact that in the vast majority of cases of albuminuria the proportion of albumen varies at different periods of the twenty-four hours. In cases of persistent albuminuria associated with structural degeneration of the kidneys it will commonly be found that the urine passed at bedtime, and which has been excreted after food and exercise, contains about twice as much albumen as that passed before breakfast, and which has been excreted after prolonged abstinence from food and rest in bed. Again, it is common enough to meet with cases in which, while the urine which is passed after resting in bed and before breakfast is quite free from albumen, that which is excreted after food and exercise contains albumen in greater or less amount. For instance, a few days since, a boy, aged ten, was brought to me on account of the frequent recurrence of albuminuria after an attack of scarlet fever six months ago. The parents, who came with him, brought two samples of his urine: one passed at 7 P.M. the day before, after a railway journey, but *before his dinner*; the other passed before breakfast. Both these specimens, carefully tested by picric acid and heat, were found quite free from albumen. He had breakfasted on fish about an hour before his visit, and the urine which he passed in my room contained a considerable amount of albumen. In this case, as in many similar cases, there can, I think, be no question that the immediate cause of the albuminuria was the passage into the circulation of some products of imperfectly digested food. I have met with numerous cases in which, while the urine passed before breakfast has been almost invariably free from albumen, that which has been secreted between breakfast and bedtime has been more or less persistently albuminous. In other cases, however, when the urine has been tested at different intervals during the day, the albumen which has been present after one meal has disappeared before the next, to reappear an hour or two after; and in such cases the influence of food has been conclusively shown. I have often observed and demonstrated the influence of food in the case of hospital patients whose urine, having lost all trace of albumen under the influence of an exclusive milk diet, has again become albuminous after a meal of solid food.

In another class of cases, exercise, and even the erect posture of the body, have been more influential than food in the production of recurrent albuminuria. Thus, in one of my patients lately—a youth, who was gradually recovering from acute albuminuria—it was found at one period that, although no albumen appeared after breakfast so long as he remained in bed, soon after he assumed the erect posture a trace of albumen was found in the urine, whether before or after breakfast, although he remained in the same warm room; so that a lowered temperature could have had no influence in the causation of the albuminuria. The only probable explanation is that the erect posture caused some congestion of the kidneys, and consequent escape of albumen, by the gravitation of blood into their weakened and relaxed vessels. Some years since the brilliant career of a very distinguished physician was cut short by renal disease, the onset of which was indicated by albuminuria, which at first occurred only after walking exercise. The sufferer told me that he first discovered the condition by testing his urine after a walk. The secretion had then a dark colour, which made him suspect the presence of bile; but on the addition of nitric acid he found, to his surprise, that the urine contained a large amount of albumen. At that time he was apparently in good health, and for a considerable period afterwards the urine remained normal at all periods of the day so long as he refrained from walking exercise. Food appeared to have no influence, but a walk of a quarter of an hour always resulted in the reappearance of albumen. After a time there was persistent albuminuria, and finally a fatal disorganisation of the kidneys.

Now, whatever may have been the primary departure from the normal condition in this painfully interesting case, there can, I think, be no question that the immediate exciting cause of the intermittent albuminuria was the excretion by the kidneys of some abnormal products of the disintegration of muscular and other tissues during walking exercise.

The main object of this communication is to insist upon the practical importance of testing the urine in all cases of intermitting albuminuria at frequent short intervals during the twenty-four hours, with a view to ascertain, and then, as far as possible, to avoid and to counteract the exciting cause of the albuminuria; and, in order that this may be effectually done, I am in the habit of instructing the patient—or, in the case of a child, the nurse or some member of the family—to test the urine by adding to about a drachm of the secretion in a test tube an equal volume of a saturated solution of picric acid, which, in the great majority of cases, affords a sufficiently trustworthy indication of the presence or absence of albumen, even without the subsequent application of heat. The comparatively rare occurrence of a precipitate of urates, of peptones, or of a vegetable alkaloid, such as quinine, on the addition of picric acid, is at once distinguished from albumen by the fact that all these precipitates disappear on the application of heat below the boiling point.[1]

The term "cyclical" albuminuria, which has been applied to this class of cases, appears to me misleading, and therefore objectionable, for the reason that it seems to imply that the abnormal condition occurs (like a tertian ague, for instance) in a regular cycle, without reference to external ascertainable and avoidable influences. This, however, is far from being the case, and it is a matter of primary importance to ascertain the probable exciting cause in every instance. I have met with numerous examples of intermittent albuminuria in both sexes and at all ages, from childhood to middle and advanced age. While cases of intermittent albuminuria, if neglected, tend to become permanent—on the other hand, most cases of acute and curable albuminuria pass through the intermittent stage on the way to convalescence. The condition has no special relation to the period of adolescence, as has been sometimes asserted; but a very common exciting cause amongst schoolboys and young men is the practice of frequent and prolonged cold bathing.[2]

Each case of recurring albuminuria requires a separate and careful study; and although a treatment based upon the careful observation of the exciting causes of the condition is usually successful, yet, on the other hand, it is unquestionable that, however apparently free from other symptoms of disordered health may be the subjects of this condition, a frequently recurring albuminuria, if neglected, will almost invariably result, though it may be after many years, in structural degeneration of the kidneys. In one case that came under my observation a period of thirty years intervened between the onset of this condition in connexion with scarlet fever and the fatal termination. An indiscriminate prophecy of smooth things in this class of cases may for the time be pleasing to the patient, but if this leads to the neglect of needful precautions the ultimate result will be disastrous.

It has become customary in some quarters to speak of "physiological albuminuria." I know of no such condition. Picric acid with heat—the most delicate and trustworthy test for albumen with which I am acquainted—gives no indication of albumen in unquestionably normal urines. But if the absence of other symptoms of disordered health is to constitute a case one of physiological albuminuria, then I can affirm, from a not inconsiderable experience, that the greatest possible amount of albumen in the urine might in many cases be designated physiological.

The notorious absence of other symptoms in the early stages of very many cases of albuminuria renders it incumbent upon every practitioner of medicine and every medical adviser of a life insurance office to test the urine of every patient and every applicant for insurance, care of course being taken

[1] See the author's Medical Lectures and Essays, chap. xiv. sec. 2.
[2] I first directed attention to this cause of albuminuria in the Transactions of the Clinical Society, vol. viii., p. 42.

that the specimen obtained for examination is one passed soon after food and exercise, and not after prolonged abstinence and rest in bed. Until this now common practice becomes universal many cases of albuminuria will pass into an incurable stage before their condition is detected, while others will be blindly accepted as first-class candidates for life insurance.

Savile-row, W.

ON THE LIMITATIONS OF THE SO-CALLED "WEIR MITCHELL TREATMENT."

BY W. S. PLAYFAIR, M.D., LL.D., F.R.C.P.,

PROFESSOR OF OBSTETRIC MEDICINE IN KING'S COLLEGE, AND PHYSICIAN FOR THE DISEASES OF WOMEN AND CHILDREN TO KING'S COLLEGE HOSPITAL.

SIX years have elapsed since I first introduced to the profession in this country in the pages of THE LANCET the systematic method of treating certain grave forms of functional neurosis, generally known as the "Weir Mitchell treatment." Until the eminent physician whose name is so deservedly associated with this treatment conceived the idea of attacking these hitherto hopeless cases in a regular, systematic, and scientific manner, such neurotic ailments were the despair of the profession, and a curse alike to the patients and to all connected with them. To have devised a means by which, when properly handled, such cases can, in the vast majority of instances, be restored to health was no slight achievement, and I have no hesitation in expressing the opinion that it constitutes the greatest advance of which practical medicine can boast within the last quarter of a century. When my original paper was written there were many members of the profession who were inclined to doubt the statements made in it, and who looked with suspicion on the methods employed as something heterodox, and so different from the old-established mode of medication as to be almost reprehensible. Gradually, however, the incontestable success which followed in well-selected cases, and the striking character of the cures often effected, attracted considerable attention, and the inevitable result followed of this method of treatment being often injudiciously, unnecessarily, and imperfectly carried out. One of the remedial agents employed, up to that time practically unknown in this country, has become so popular that I believe I was fully justified in writing of it as I did lately in a letter on the subject in THE LANCET as follows: "No newspaper appears without half a dozen advertisements about massage, schools for massage have been started, every hospital has one or two nurses or sisters who practise it, and massage threatens to become the prevailing medical fashion, if not the prevailing medical folly, of the day." I have, of course, no means of knowing to what extent massage is prescribed by the medical profession generally, or in what cases it is used. It is absolutely certain that it must have received an extended application in a vast number of cases other than those in which I at first employed it, for it is quite astonishing to see the number of women who are seeking to earn a livelihood by practising it. I hear of them in shoals, and such a supply seems to indicate a great demand. From many sources and in various ways, I come across histories of cases subjected to this treatment which were manifestly quite unsuited for it, and in which nothing but failure and disappointment could possibly result; or I hear of it being carried out in a way in which it could not possibly succeed. The result is that a treatment, good and even admirable in properly selected cases, gets discredited. In consequence of the attention I have paid to this subject I have had opportunities of studying it pretty fully, and I may claim to have acquired a large experience with it. I trust, therefore, I may not be considered presumptuous if I now draw the attention of the profession to the limitations of this method of treatment, and to the precautions which should be taken in the selection of cases in which it should be applied. From what I have said above, and from the number of cases in which I am asked to advise, in which it is absolutely inapplicable, I feel convinced that a word of warning is not likely to be untimely.

1. I would lay down the rule, subject possibly to a few rare exceptions, that it is unsuited to any form of organic disease. It is especially in some obscure forms of organic disease of the spinal cord that the mistake is most often made of resorting to it. I have seen, not one, but many cases of well-marked locomotor ataxy, or of sclerosis, in which it has been prescribed. This, of course, implies a gross error of diagnosis, but none the less is it a deplorable thing that patients should be subjected to the expense and disappointment entailed on them by such a mistake. But short of errors of this kind, which should not have been made, there are a large number of cases of obscure spinal disease in which the diagnosis is a matter of supreme difficulty. No one can be more convinced of this fact than myself. I have seen many cases in which I have found it quite impossible to come to a conclusion myself, and in which I have had the advantage of the opinion of some of our most eminent neurologists, some of whom have pronounced a given case organic, others functional. Again, I think there is good ground for believing that a disease originally purely functional, and which doubtless might have been cured if treated in its inception, may eventually have engrafted on it certain structural changes in the nerve centres controlling locomotion, which render permanent and complete cure impossible. So far, therefore, am I from considering mistakes in the selection of cases simulating certain forms of nerve disease reprehensible, that I believe them to be occasionally absolutely unavoidable. I would even go further and express the opinion that there are some obscure cases the nature of which can only be cleared up by the test of treatment. If they are functional, systematic treatment, properly applied, will cure them; if they are organic, it will not. No doubt this is a comfortable doctrine and a nice way of excusing failure, but nevertheless I believe it to be a true one. From what I have said, however, the necessity of extreme care in diagnosing this class of case will be apparent; and, indeed, it involves a knowledge of the most advanced kind in modern neurological medicine, which few of us can boast of possessing. For myself, so convinced am I of this difficulty, that I make it a rule never to undertake a case of this sort about which I have the least doubt until I have had my own experience fortified by the judgment of some expert in this class of disease, and I have often had to congratulate myself on insisting on this precaution.

2. Care should be taken never to apply this treatment to any marked case of mental disease. I believe errors in this direction are far from uncommon. If I may judge from my own experience, this method of treatment has often been attempted in cases of pronounced melancholia and other types of chronic insanity, in which it cannot possibly do any good, and in which it may do much harm. Strong pressure is often applied by relatives and friends to have a case pronounced "hysterical," because they cannot bring themselves to face the fact that it is mental. I have been asked my opinion on many cases of this kind, in which the friends have strongly urged me to treat the case. I admit that it is very often extremely difficult to make the distinction. In one sense all marked cases of hysteria are mental, and they are often very closely allied to insanity. If the family history of any case of marked hysteria is analysed, it will generally be found that there is a tendency to neurotic disease running through it, and that even pronounced insanity may exist in some members of it. Of the close relationship of hysteria of a certain kind to insanity I have seen several curious and instructive examples. Two or three years ago a young lady was sent to me as a bedridden hysteric, and her case seemed in every way an excellent one for treatment. In due course of time she was quite cured, and her recovery was justly considered a remarkable one. From having been confined entirely to her bed or sofa for years, she became strong, active, and energetic, and entered into all the duties and pleasures of society. A year later she wrote me a letter, telling me how well she was, and as a proof she mentioned that she had been out with the hounds on the day she wrote, having been many hours in the saddle. The next morning she committed suicide in her bedroom. In another instance I cured a similar bedridden case, which was marked by the most extreme hysterical apepsia and emaciation. She made a perfect recovery, and for two years remained in robust health. During her illness and treatment she never exhibited the faintest symptom of mental disease. At the end of two years she suddenly, and without any premonitory symptoms, developed an attack of acute mania, and had to be placed under certificates. From

this she has now recovered, and is, to all appearance, perfectly well. Most unquestionably there are a large number of what may be called borderland cases, who are what is vulgarly called "a little cracky," who may, by a judicious course of treatment, be drawn away from the edge of the precipice along which they are walking. The improved nutrition, and restored general health resulting from it, inclines the balance in the direction of improved mental as well as of improved bodily health, and the cure may be permanent. The selection of such cases for treatment must, however, always be a matter of great difficulty, and requires much judgment and experience; and I have no doubt that the rule I have indicated is the correct one, and that systematic treatment should not be attempted when any definite sign of mental disease exists. I am quite sure that the only failures and disappointments I have met with, and they are not many, have been in doubtful cases in which I have been persuaded to attempt a cure in spite of my own better judgment.

3. I would strongly urge everyone contemplating the treatment of a case in this way either to do it thoroughly and well, or not to do it at all. This is a rule I have insisted on elsewhere, and on the importance of which it is impossible to exaggerate. It is disheartening to see the number of cases I come across admirably adapted for systematic treatment, in which success was as nearly certain as anything could be, which have been spoiled because the practitioner tries it "in a modified way," the modification generally consisting in treating the patient in her own house, or in admitting the visits of friends, or in allowing the patient to get up and go out during treatment, or some other way of trying to perform "Hamlet," with the part of Hamlet left out—a performance proverbially known to be unsuccessful. No doubt the difficulty and expense of carrying out systematic treatment thoroughly are so great that there is a strong temptation to adopt some of the "modifications" alluded to, but I can only repeat that increasing experience confirms me in the opinion that thoroughness and completeness are absolutely essential, and should be considered a *sine quâ non*. If they are neglected, failure may most certainly be predicated.

George-street, Hanover-square, W.

THE PATHOLOGY OF INFECTIOUS AND INFECTIVE DISEASES,

AS ILLUSTRATED BY THE FACTS OF INHERITANCE.[1]

BY JOSEPH COATS, M.D.

WHEN we take a broad survey of the great group of diseases which apparently owe their origin to morbid poisons, we must be struck with the fact that, probably in the case of all of them, different persons show the most extraordinary differences in susceptibility. So striking is this fact that some observers have been induced to attach almost exclusive importance to the idiosyncrasies of the individuals, and to question the existence of specific characters in many of the morbid agents producing this class of diseases. In an address by Mr. Lawson Tait (published in the *British Medical Journal*, July 23rd, 1887) we find him seriously questioning the acceptability of what is called the germ theory, and basing his strictures on the various reactions which different individuals present to the same morbid influence. He emphasises the fact that even the same person may for an indefinite time resist the inroads of a morbid agent from without, while at another time he falls a victim to the same agent. It is customary to answer such criticisms as these by saying that in order to the planting and growth of any vital morbid poison it is necessary that the soil should be a suitable one; accepting the prevalent view that the diseases under consideration depend on the existence of living micro-organisms, then it is said that in order to the growth and propagation of these vegetable organisms a fitting nidus is required, a soil in which they can live and multiply. This is certainly a very easy and plain way of explaining it; but, except in a very popular sense, it can scarcely be regarded as accurate. When we speak of a soil in relation to vegetable life we refer to certain physical and chemical conditions which are favourable or unfavourable to the growth of the plants concerned. It can scarcely be supposed that human beings differ so seriously in the chemistry of their tissues as that a particular micro-organism will find sufficient pabulum in one man and not in another. It is well known that these micro-organisms can be grown outside the body in media containing chemical principles all of which are present in the juices of every living animal. In their vital processes these organisms live on the ordinary constituents of the tissues, and they seem, once they have secured an entrance, to have an extraordinary power of assimilating these constituents. There must be something here different from a mere variation in soil, something of a more complicated character. I believe that in the differences in individuals determined by inheritance we may find some indications as to the solution of this question; at least there are many interesting facts bearing on the subject which, I believe, merit very special attention. I propose now to indicate as briefly as possible, in the first place, and chiefly by illustration, the nature of inheritance in so far as its influence can be traced in the anatomical and physiological characters of the living body. Having obtained in this way a basis of principle, I intend to illustrate its influence in the case of infectious and infective diseases, with the object of obtaining some assistance in overcoming the difficulties to which I have already referred.

It may be well in the first instance to state what is meant by the terms "infectious" and "infective" diseases. There is no difficulty in apprehending that in the case of infectious diseases there is a morbific agent conveyed into the living body from without, and capable of self-propagation in the body. It is mostly the case that in this class of diseases the morbific agent is in the blood, and the condition has the characters of a general disease, usually an acute fever. This is not always the case, however, and the morbific agent may have its seat elsewhere, as in the alimentary canal in cholera. The infectious diseases, then, are communicable by the passage into the body of morbific agents derived directly or indirectly from persons who have been affected with the specific diseases concerned.

When we speak of infective diseases, on the other hand, we think of the progress of certain morbific agents in the living body. A disease is infective when, having become established in a particular place, it extends to parts around or at a distance by reason of the propagation of the morbific agent concerned. Infective processes involve a slower or more rapid spreading of the disease from a local centre. This process of spreading is usually along existing channels, such as the lymphatics. As an example of an acute infective disease we may cite the case of erysipelas. Here the morbific agent, having found an entrance, advances in the lymphatic spaces of the skin, bringing in its train the striking phenomena of acute inflammation. We have an instance of a chronic infective disease in lupus, where there is a slow extension to neighbouring parts of the skin. Of course a disease may be both infectious and infective. It may be derived directly or indirectly from another person, and yet it may, when implanted, have a local seat, from which it gradually spreads. Syphilis is an example which will occur to everyone.

In the case of infectious diseases, I shall take it for granted that we have to do with specific micro-organisms. I do not intend to go into the proof of this here, but I shall assume that it is the case, and that the problem which we have to face is, how these micro-organisms in certain cases multiply with extraordinary rapidity, while in others they do not. In the case of infective processes I am not sure that this assumption is in every case warranted. In a very admirable address by Mr. Jonathan Hutchinson, published in the *British Medical Journal* of July 23rd and 30th, he refers to the spreading character of many skin diseases, and I am far from assuming that in all these cases micro-organisms are concerned. We are much safer in speaking about morbific agents. At the same time, for our purposes here, I think we may confine our attention to conditions which are demonstrably or inferentially due to the action of micro-organisms. This applies to many infective diseases, and more particularly to tuberculosis, syphilis, leprosy, glanders, &c.

THE GENERAL PRINCIPLES OF INHERITANCE.

Having indicated in what has gone before the class of diseases included in the designations infective and infectious, we have, as a further basis for what is to follow, to consider the general principles of inheritance. What I mean by this is that we must come to some understanding as to

[1] Read before the Medico-Chirurgical Society of Glasgow.

what the domain of inheritance is, what influence it has on the anatomical and physiological conditions of our bodies. With a view to answering this question, let us remember that when the ovum leaves the ovary and becomes fertilised by the spermatozoa it enters on what is in many aspects an independent career. The uterus affords it a place of shelter and food and needed warmth, but apart from this even the mother exercises little or no influence on the development of the fœtus. The ovum holds in itself the wonderful possibilities of a future man or woman, and, if sufficient material be provided and it be protected from all injurious influences, it goes on developing the various tissues in due proportion. The ovum already possesses, transmitted from its parents, these extraordinary forces, by virtue of which the bony tissue, the muscles, skin, nervous tissue, and all the rest are produced in their certain fixed amount and form. The frame is modelled by this inherent force till at the end of nine months of silent exertion a human babe is born. If you doubt the independence of this action, consider the hatching of the chick from the egg. The egg leaves the body of the mother bird with the fertilised ovum and a supply of nourishment sufficient to afford material for the future tissues, and all that the mother has now to do is to keep the egg warm, a function which can be equally well performed by an oven. The embryo grows by its own implanted force, and the parts, in the poetic language of the Psalmist, are curiously wrought in the lowest parts of the earth.

We may say, then, that it is by virtue of inherited forces that the human embryo works out its destiny in producing a human being. It is by virtue of inheritance that mankind is propagated. But these forces do not cease at birth, they go on acting throughout life, and we see the influence of inheritance in the fact that nearly every man conforms to the characteristics of mankind in general at the different periods of life. By inheritance the bones know when to stop growing, and the other parts conform to the size and shape of the skeleton. By inheritance the teeth appear in due time, the characteristic changes occur at the time of puberty, and so on. Looking to the whole race of mankind, it may be said that in the adult state they are so much alike that at the distance of a mile there is as little visible difference as we can recognise at a yard's distance among the ants of an ant-hill.

We see the influence of inheritance not only in the fact that human parents produce human offspring, but also in that the offspring conform to the *race* of the parents. It is important in connexion with what follows to consider what constitute the differences of the races of men. There is more or less pigment in the deeper layers of the epidermis; the hair, in transverse section, is round or oval in outline, or more or less oval; the nasal bones are articulated at an acute or obtuse angle; the lower jaw is more or less massive; the shape and details of the bones of the skull are various; the eyes are horizontal or are directed upwards at their outer extremities; and so on. It is these differences in structure that make the chief distinctions of race, and, if we compare two such dissimilar races as the negro and the Englishman, we shall see that the difference lies in a multitude of details, each of which if taken apart might seem trivial. And yet the fertilised ovum inherits the power of modelling the bodily frame down to these minute details, and it practically never goes wrong.

But, besides the characters which distinguish men as men, and the men of one race from those of another, we know that *men are distinguished* from each other *individually*. When we consider the general likeness of the men of one race to each other, it seems marvellous that, among the multitudes with whom we come in contact, we rarely mistake one for another. The only explanation of this is that there are innumerable shades of difference—in colour of skin, hair, and eyes; in shape of nose, mouth, and eyebrows—an infinite number of small peculiarities, which make up the whole portrait. We unconsciously blend the whole of them in one mental picture of the individual, and if one of them be altered we at once recognise that our portrait is out in some way and has to be readjusted, as when we change the arrangement or length of the hair or beard, or when the mouth is altered by the loss of teeth or the addition of an artificial set. This may be further illustrated by the well-known fact of the insufficiency of photographs. In them you have an exact picture but without the colour, and the absence of this one element in the portrait has often the effect of almost destroying the likeness.

Now, it need hardly be said that most of these fine shades of difference between man and man are due to inheritance. The ovum enters on its career with these already inherent in it, and the various minute points of difference are but repetitions variously compounded of points in its progenitors. We are so accustomed to look for resemblances between children and parents that we are apt to forget what these imply. It is a particular colour of the iris, a special tone in the voice, a trick of manner, such as a twitching of the upper eyelid, or a way of fidgeting with the hand, which recalls the parent or grandparent. These minute points of resemblance become the more remarkable when we remember that they are all inherent in the fertilised ovum. Without any external assistance it goes on modelling the tissues and endowing them with their functions according to a pre-arranged pattern, and this power continues throughout life; so that it often happens that, on to middle life or old age, points of resemblance come out which had not been previously visible. Sometimes a child will resemble one parent most up to puberty, and will then, in undergoing the extraordinary changes of that period, come to resemble the other more. The child is not a mere reproduction of its parents, but it is as if the mother and father transmitted to the ovum certain forces inherent in themselves and derived from their ancestors. These forces will be variously proportioned in each case, and the product will be a very complex one. It is quite impossible to tell how, in any particular case, these forces are mingled, but we can often identify the individual items as coming from this or that parent.

A highly important illustration of the truth of what I have been adducing is afforded by the facts connected with *twins*. We have seen that each ovum which leaves the ovary and becomes fertilised is thereby endowed with the forces which mould it into the future human being. These forces seem variously distributed in the ovum and the spermatozoa, so that each ovum has them in such varying proportions that even the brothers and sisters of the same family are often very different. But if a single ovum produces two embryos which are simultaneously fertilised, then we might expect that the forces inherent in these two embryos would be much more nearly alike than usual, and that in consequence the two individuals would resemble each other more closely than is usually the case. And so it is. There are two kinds of twins. In the one, the individuals are derived from separate ova, just as the progeny of animals which bear several young at the same time are; while in the other kind there is only one ovum with two germinal spots. In this latter case the twins are always of the same sex, while in the other case they may or may not be of the same sex. In the case of twins derived from the same ovum we may look for close resemblance, and they will always be of the same sex. In the other case, where they are derived from separate ova, they may or may not be of the same sex, and they will not necessarily resemble each other more closely than the ordinary brothers and sisters of a family. In a well-known work by Francis Galton[2] we have a collection of interesting facts in illustration of the life-history of twins. He gives many anecdotes supplied by twins as to the mistakes made on account of close likeness, from which it will be gathered that the "Comedy of Errors" is scarcely a burlesque. The resemblance in many cases lasted throughout life, and extended to the smallest matters, even of feeling and thought, and, indeed, to their illnesses.[3] From these facts we have demonstrative proof that in the fertilised ovum we have already inherent virtually all the finer details of structure and function, although many of these only come into effect in after-life. It will be observed that the sex is determined in the ovum.

INHERITANCE OF MORBID CONDITIONS.

Turning now to morbid conditions, let us look at one or two undoubted cases of inheritance. There is in existence a great mass of evidence of the inheritance of *structural peculiarities*, some of them scarcely going beyond normal deviations, while some are distinctly morbid. I know of a case, for instance, in which the second and third toes of both feet are imperfectly separated, so that, although the bones are complete, the toes are united nearly to their tips by a web of skin. This peculiarity existed in a man who trans-

[2] Inquiries into Human Faculty and its Development (with Composite Photographs). London, 1883.

[3] See also Kleinwächter: Die Lehre von den Zwillingen.

mitted it to a son, who died in boyhood, to a grandson, the son of one of his daughters, and to a great-granddaughter. Sedgwick, in his very elaborate series of papers in the *Medico-Chirurgical Review* for 1861 and 1863, adduces many cases of inheritance of supernumerary digits, crooked fingers, cleft iris, squinting, &c. He gives, for instance, a case in which a supernumerary finger was attached to the outer side of the first phalanx of the little finger. The deformity had occurred for five generations, and the person under observation was the fourth child of a family, all of whom except the second were born with this deformity.

There is also the well-established inheritance of *ichthyosis*, the most striking instance of which is that shown by the family of Lamberts, the so-called "Porcupine" family, adduced by Darwin in his "Animals and Plants under Domestication." In the original Lambert the skin was covered by warty projections which were periodically moulted. He had six sons and two grandsons similarly affected, and it is remarkable that the inheritance was confined to the male sex, the two grandsons having seven sisters who were free of it. A still more striking instance of the inheritance of ichthyosis is related by Sedgwick.[4] The disease was observed in a boy fourteen years of age, and on tracing his family history it was found that he derived it from his grandfather. This man had been affected with this disease, and it is a striking example of atavism or latency in one generation that none of his children showed the disease, although there were three sons and three daughters, while of seven grandchildren (five males and two females) four of the males were affected and none of the females. The affected males were the children of daughters of the original case.

We are all familiar with the inheritance of *hæmophilia*, or hæmorrhagic diathesis, and with the peculiar mode of its inheritance. The fact of its inheritance, as well as the peculiar form of inheritance, is shown in a family tree which Dr. Wickham Legg has constructed from an actual series of cases.[5] Dr. Finlayson has also published a family tree illustrating the same fact.[6] In both of these instances the morbid condition occurred always in the male, but he inherited through his mother. In this way the disease always skips one generation, and it may pass over several. If this mode of inheritance be always followed, then the disease will be one of the male sex. It is essentially so, although, according to Wickham Legg, it is not entirely unknown in the female.

Daltonism, or colour-blindness, is also demonstrably hereditary, and it is usually inherited in the same fashion as hæmophilia. This is shown in a family tree given by Wickham Legg in his paper. Many more illustrations might be adduced, but I will content myself with one other.

Diabetes insipidus is apparently hereditary in a remarkable degree. In this affection the person drinks excessively and passes a large excess of urine. We may presumably infer that the kidneys are unduly large, and we know that the bladder is unusually capacious. This was proved in a case recorded by Dr. Finlayson,[7] and was also determined by Weil in the cases I shall presently mention. Gee[8] has recorded cases showing that this condition is hereditary, but Weil, in a paper in Virchow's *Archiv*,[9] records a most remarkable instance of inheritance of this condition. Weil met with a case, and he set himself by hunting up and down the country to find all about the relatives of his patient, with the result of producing a most elaborate genealogical history of the family. He traced ninety members of the family extending through four generations, seventy of whom were living at the time of the observation. He personally investigated most of these seventy cases. The disease was traced to a man called Johann Peter Schwartz, who was the common ancestor of the family, and was born in the year 1772. His descendents were five children, twenty-nine grandchildren, and fifty-six great grandchildren, in all ninety-one persons. Of these no less than twenty-three were certainly diabetic, and thirteen doubtfully so. Omitting the doubtful cases altogether, there remain seventy-eight persons, of whom twenty-three were affected, or 30 per cent. According to Weil this condition was perfectly consistent with good health. They were evidently prolific enough and generally long livers. The original Schwartz lived to be eighty-three, and of his three daughters one died at seventy-four, and the other two were still alive at the time of observation, being respectively seventy-six and sixty-seven years of age.

(To be concluded.)

[4] Med.-Chir. Review, April, 1861, p. 478.
[5] St. Bartholomew's Hospital Reports, 1881.
[6] Glasgow Medical Journal, July, 1882.
[7] Ibid., vol. xv., 1881, p. 17.
[8] St. Bartholomew's Hospital Reports, 1877, p. 79.
[9] Vol. xcv., 1884, p. 70.

HYPERTROPHY AND ITS COUNTERFEITS.[1]

BY J. BLAND SUTTON, F.R.C.S.,
HUNTERIAN PROFESSOR, ROYAL COLLEGE OF SURGEONS; ASSISTANT-SURGEON, MIDDLESEX HOSPITAL.

IN pathology, as in kindred sciences, it is extremely difficult to frame sharp definitions and methods of classification. Nevertheless it is clearly an advantage to be precise in our definitions and in the use of terms. Unfortunately in clinical teaching and writing precision in the use of terms is sadly neglected. This is well illustrated in the abuse of the term "hypertrophy." In this paper it is proposed to discuss some specimens of genuine hypertrophy, and compare them with other forms of enlargement.

An organ may enlarge beyond the normal standard from three causes:—1. Hypertrophy. 2. Overgrowth. 3. Inflammation.

Hypertrophy is the enlargement of an organ, partial or complete, beyond its usual limits, as the result of increased function, or of some unusual condition of the corresponding or correlated organ.

In 1886 I removed from a woman aged fifty-four years the left hallux, including the metatarsal bone. Six months later the foot presented the condition shown in Fig. 1. The

FIG. 1.

Hypertrophy of the second toe after amputation of the hallux.

second toe had enlarged, stood out from its fellows, and looked exactly like a hallux, for which it was mistaken by more than one observer.

In this specimen we have to deal with true hypertrophy, the result of increased function. It is of value from another point of view; for it serves to explain why the hallux in man is so much larger than the remaining toes, whilst in most mammals below the primates (excluding such forms as the cuscus, koala, &c. among metatheria) it is rudimentary. Indeed, the expression of Prof. Humphry on this matter is very apt: "Man literally stands in the animal kingdom upon his great toe." The same remarks apply to the human thumb; here increased function develops its special muscles, thickens the bone, and toughens the nail. In lower mammals, even in the quadrumana, the thumb may be rudimentary or absent. Such a highly developed form as the chimpanzee has a slender, short, and insignificant thumb, scarcely reaching to the metacarpo-phalangeal articulation.

Of all conditions mistaken for hypertrophy enlarged bones

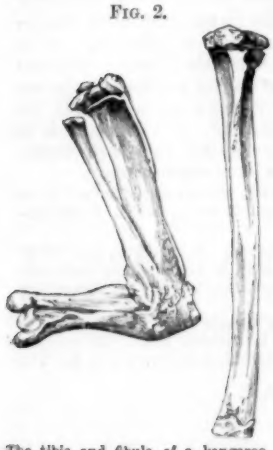
[1] Abstract of a paper read before the Harveian Society, Oct. 20th, 1887.

are among the most frequent. Let me describe two cases for comparison.

An old man had long suffered from ununited fracture of the tibia. When he died the fibula was found to be three times thicker than usual. In this instance the fibula performed the unusual duty of transmitting the weight of the body to the ground, and had hypertrophied to meet the demand. Increased function, accompanied by an increase in blood supply, were the main factors in producing this very desirable result.

Let this specimen be compared with the following:—A brush-tailed kangaroo some months before death broke its leg. No treatment was adopted. When the kangaroo died it was found that the tibia and fibula had been fractured about their middle; the fragments had united at a right angle, as shown in Fig. 2. For many months this poor brute had walked upon the ends of the upper fragments. This led to inflammatory changes in the tibia and fibula, the bones doubling their size in consequence.

FIG. 2.



The tibia and fibula of a kangaroo, fractured and united at a bad angle. The healthy tibia is introduced for comparison.

No one, reflecting upon the circumstances of these two cases, could deny that they owe their enlargement to two very different causes, yet it is by no means uncommon to hear such inflammatory enlargements loosely referred to as examples of hypertrophy.

The most typical examples of hypertrophy occur in connexion with muscle fibre, voluntary and involuntary. Patients who have suffered amputation of both lower limbs at the middle of the thighs lose the assistance of the hamstrings, and in a great measure that of the glutei muscles, to keep them erect. In such cases the erector spinæ muscles and their subdivisions hypertrophy and stand out prominently as two fleshy columns of great strength. Among involuntary muscle fibre one example may be mentioned. In a man aged fifty-four I excised the anus and lower segment of the rectum, but was able to preserve one-third of the circumference of the sphincter ani. Six months later this piece of the muscle had hypertrophied, and projected like a valve across the anal orifice; one year after the operation this was so strong as to give the man absolute control over the bowel.

2. *Overgrowth* results in most cases from disuse; in some rare instances from an abnormal supply of blood. The most extraordinary cases of overgrowth are furnished by dermal structures, such as teeth, nails, hoofs, claws, &c.

FIG. 3.

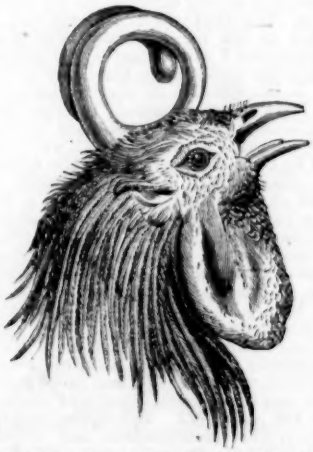
The head of a babirussa. The canines are entering the cranium.

Teeth which grow from persistent pulps, like the incisors of rodents, elephants, &c., furnish terrible examples of the pernicious effects of overgrowth. The head of a babirussa is represented in Fig. 3. In this case the curiously curved canines have converged to the middle line, in consequence of the animal rubbing them against the sides of its prison, and are entering the brain-case, in virtue of the erosion induced by their pressure on the underlying bone.

Nails furnish much that is curious among overgrown structures. In the human subject the commonest examples occur in bedridden women; in a toe removed by me from a woman, aged eighty-three, the nail of the hallux was two and a half inches long, thickened and twisted like a ram's horn. In ungulate mammals they are yet more remarkable. In the Proceedings of the Zoological Society (1887) I have figured the overgrown hoofs of a goat, which measured ten inches round the curve on one foot and fourteen inches in the other. The sharp claws of the carnivora sometimes attain excessive length, when kept in cages. These overgrown claws describe circles and re-enter the foot, causing horrible pain. A lion had a claw of this character, and in order to cut it, the animal was caught by a rope and held fast. Its struggles and fury were very terrible. A few months later the claw grew again and gave the beast pain. This time it was caught, secured with little difficulty, and, as if sensible of the relief it had previously obtained, submitted to treatment with scarcely a struggle. This reminds one of the story of Androcles and the lion. The beaks of birds, especially pheasants, peacocks, partridges, and parrots, are liable to similar overgrowth. Of course the great difference between overgrowth of dermal structures and hypertrophy is that overgrowth arises from disuse, hypertrophy from increased use; but there are two points in which the processes agree, and hypertrophy may occur in dermal organs. This last point may be illustrated by the nail of the thumb of those who labour with their hands; in most persons who employ the hands usefully, the nails of the thumbs are thicker than those of the remaining digits, and that of the right thumb is often much thicker than the left one. This form of hypertrophy attains its maximum in the horse. We know that when organs are paired, such as the kidneys, the slow loss of one will be compensated by the gradual increase of its fellow, due to extra work and blood supply. In 1887 Dr. Sclater exhibited at the Zoological Society an elephant's tusk which was six feet long, and weighed over 100 lb. It was obtained from a "rogue" elephant killed at Goruckpore in 1836. More than one specimen of this kind have been described.

Among the many curious experiments performed by Hunter in transplanting dermal organs, the following is most instructive. He transplanted the spur of a cock into its comb: the spur took root, lived, and attained an abnormal length, twice curving upon itself, and being thick in proportion. (Fig. 4.) Hunter found that whenever these spurs took root in the comb they grew much larger than when left on the leg; this he attributed to the greater vascularity of the comb over the leg. He failed, however, to take into account the deficient usage of the spur in the new situation. Thus the unpaired tusk and the abnormally nourished spur in the comb of the cock bear some analogy to each other.

FIG. 4.



The head of a cock with its spur transplanted into the comb. (Hunterian.)

The relation of blood supply to overgrowth is illustrated in the following experiment: Bidder[2] excised a piece of the sympathetic nerve in the neck of a young growing rabbit. This was followed by overgrowth of the ear of the same side. The experiment has been repeated by Sterling[3] on young and growing rabbits, and on dogs. A piece of the vagus and sympathetic—for in dogs both nerves are contained in the same sheath—was excised. In all casesthe ear on this side became distinctly longer, broader, and somewhat thicker than its fellow. The hair was longer and stronger on the side operated upon, and the ear remained distinctly warmer.

(To be concluded.)

A CASE OF NASO-PHARYNGEAL POLYPUS.

LAWRENCE'S OPERATION; RECURRENCE; SECOND OPERATION; RECOVERY.

BY C. STONHAM, F.R.C.S.,
ASSISTANT SURGEON TO THE WESTMINSTER HOSPITAL.

J. B——, aged sixteen years, came under my care in October, 1883. He was sent to me by Mr. Collins of East Grinstead, to whom he had applied for the first time on the previous day, in consequence of a somewhat profuse attack of epistaxis, and also of some respiratory difficulty.

History of present illness.—Twelve months ago the patient had noticed a thickness in his speech "as if he had a cold in his head and nose." Soon after this he suffered from repeated attacks of epistaxis, which occurred three or four times a week, but which could always be stopped by applying cold to the head. Shortly after the first attack he noticed that the left nostril was partially blocked, as was subsequently the right, and six months after the onset of the symptoms this was complete. Recently there has been troublesome dysphagia and marked snoring at night, with respiratory difficulty.

State on admission to St. Thomas's Home.—Both nostrils completely occluded by a growth which, when examined by anterior rhinoscopy, appeared to be growing from behind, as no attachments could be seen. The breath was very fetid. On the patient opening his mouth widely and taking a deep breath, a rounded tumour could be seen behind the soft palate; the growth moved readily, and had a greyish, sloughy surface. On passing the finger behind the soft palate (causing but slight pain and hæmorrhage), the tumour was found to be a large naso-pharyngeal polypus attached to the base of the skull by a broad, hard pedicle; it could be felt growing forwards into the posterior nares, especially towards the left, and appeared to be about the size of a hen's egg. There was no deformity of the face or bridge of the nose. A few days after the above examination a good-sized piece of the tumour sloughed off, relieving the patient considerably, and causing his speech to be much more distinct.

On Oct. 25th, the patient having been put under chloroform by Dr. Chisholm, a more thorough examination was made. Mr. C. Heath and Mr. Godlee (to whom I am much indebted for their valuable advice and assistance) also examined him, and it was found that the tumour was attached by a very broad base to the basilar process and to the left naris; from this attachment it extended backwards, but did not implicate the vertebral column.

Operation.—As a preliminary step, laryngo-tracheotomy was performed. Trendelenburg's trachea tampon was used, and acted very well, causing no irritation; the pharynx was plugged with a sponge. An incision was then made from the inner angle of the left orbit, down the side of the nose, across the upper lip, and up the right side of the nose to the inner angle of the right orbit. The nose being opened, the septum was divided with strong scissors in a direction obliquely upwards and backwards, so as to retain the cartilage of the septum in connexion with the soft parts and ensure a maintenance of the shape of the nose. The nasal process of the superior maxilla on each side was then divided with bone forceps, the nasal bones broken across at their narrowest part, and the nose turned forcibly upwards. The posterior part of the septum was next cut through above and below and removed, and, in order to gain still further room, the turbinate bones were pressed against the outer wall of the nasal fossæ. Having thus gained a clear view of the tumour, the pedicle was cut through with Paquelin's cautery; but, some difficulty being found in removing the posterior part, the sharp spoon was tried. Some portions of the growth were, however, so tough that the spoon made no impression, and the remainder of the growth was burnt off with the cautery. A large piece of the growth was dislodged from the sphenoidal cells, and the basilar process was felt, quite denuded of mucous membrane and periosteum. The seat of the pedicle was now cauterised with chloride of zinc paste applied on lint, and left *in situ* till the following day; the nose was then replaced and fixed with silver wire sutures, hardly any deformity resulting. Trendelenburg's tube and the sponge were removed, and natural respiration re-established. Throughout the operation, which lasted an hour and three-quarters, there had been free hæmorrhage, which the patient stood fairly well.

The daily progress of the patient while in hospital on this occasion calls for no detailed account. The mouth was kept sweet with sanitas spray, and the facial wound dressed with iodoform wool and collodion. Iodoform was also used daily to keep the granulating surface clean. For the first four days after the operation there was the most intense occipital headache, which at once disappeared under bromide and iodide of potassium. On the third day the temperature rose to 103·2° F., but fell again in a few hours, and in the course of the next week became normal. On the fifth day the facial wound was perfectly healed, and the tracheotomy wound almost so; and on the fourteenth day after the operation the patient left the hospital quite well.

On April 6th, 1884 (nearly six months after the first operation), the patient again came to me with a recurrence of his symptoms, especially the epistaxis, which had come on six weeks after the first operation. The scar on the face was almost imperceptible. On examination, I found, as before, that the growth entirely filled up both posterior nares, and I advised a second operation, to which the patient readily agreed. I showed the boy at a meeting of the Clinical Society on April 15th, 1884.

On April 26th the patient was put under chloroform, and it was then found that the tumour was springing from the basilar process as before. A preliminary tracheotomy was done, as on the previous occasion, and at Mr. Heath's suggestion the soft palate was divided in the middle line, and an attempt made to remove the growth through the mouth; but this plan failing to give enough room, the nasal cavity was opened up along the line of the old scar, and the second operation was simply a repetition of the first, except that behind the tonsil Volkmann's sharp spoon was used, so as to avoid any possibility of wounding the internal carotid with the Paquelin's cautery. The growth was completely removed in one piece, the soft palate stitched together with silk, the nose fixed with iron wire sutures, and the wound painted over with collodion as before. Trendelenburg's tube was replaced by an ordinary silver tracheotomy tube. Although the patient had lost a very considerable amount of blood, he did not require any stimulants; he was put back to bed and given a third of a grain of morphia hypodermically, and subsequently made an uninterrupted recovery. For the first few days he complained of severe occipital headache, as on the previous occasion. The wound in the palate healed up with the exception of a small part in the middle, where it had been burnt with the cautery, but this subsequently closed up perfectly. The growth measured from three to three and a half inches long, two to two and a half inches broad, and half an inch thick, and its structure was characteristic of the ordinary fibroid tumour.

I heard of this patient again during the early part of the year (1887) from my friend Mr. Collins, and at that time he was quite well and free from any sign of recurrence, more than three years after the second operation, so that it may fairly be concluded that the disease is completely eradicated.

Welbeck-street, W.

[2] Centralblatt für Chir., No. 7, 1874.
[3] Journal of Anatomy and Physiology, vol. x., p. 511.

THE VICTORIA HOSPITAL FOR CHILDREN.—The secretary of this hospital, which is situated in Queen's-road, Chelsea, has just issued an appeal for contributions to the hospital, in the form of a Christmas "Forget-me-not," with illustrations, graphically representing the benefits bestowed by the charity; an appeal which, we hope, will receive a generous response.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

BLIND SIXTY YEARS; IRIDECTOMY; RESTORED TO SIGHT; GOOD COLOUR PERCEPTION.

BY DAVID MCKROWN, M.A., M.D., M.CH.

EDWARD C——, aged sixty-three, a fiddler, had, when I saw him in August, 1883, been blind upwards of sixty years. When a year and a half old he lost the sight of both eyes from an attack of small-pox. The right eye had not perception of light, but the projection of the left was good. There was a dense central opacity extending into the upper half of the left cornea, and the iris was adherent all round to the margin of the opacity. I performed an iridectomy opposite the transparent cornea above, the only place available for such a purpose. I showed the patient in the Ophthalmological Section at the meeting of the British Medical Association held in Belfast in 1884—i.e., about a year after operation. The condition then was:—The cornea opposite the artificial pupil was a little milky; the use of the eye was attended with some difficulty—the pupil being above, and the eye before operation having had a somewhat upward position, a considerable effort on the part of the inferior rectus was required (a tenotomy of the superior rectus alone or combined with the advancement of the inferior rectus would doubtless be advantageous); the presence or absence of the lens could not be determined; the result of a trial with glasses was practically *nil;* the vision which he had gained by the operation enabled him, when in the streets, to dispense with the stick which, before the operation, was a necessity; he could count objects of a line and a half in diameter when about a line distant from each other; he recognised comparatively small differences in size. His colour-perception was remarkably good; he distinguished not only the well-defined colours, but also different shades of the same colour, sometimes even when these differences were not very marked. His colour education was very rapid. When I first spoke to him upon the subject I found that he was pretty familiar with green, blue, and red. Some patients in hospital had given him instruction. He came to know green by examining a quilt of that colour which was upon his bed, blue by inspecting a blue-and-white-striped shirt which he wore, and red from seeing a lining of that colour in a hat. He afterwards came to know yellow, brown, &c., from having these colours shown to him a few times. The coins (involving shape, size, and colour) were soon mastered.

This case is probably unique, seeing the early age (a year and a half) at which vision was lost, the very prolonged period (upwards of sixty years) of blindness, and the extremely gratifying results of the operation; and it has an important bearing upon some interesting questions regarding the conditions under which the functions of the retina may be lost or preserved, and the recognition of form, estimation of distance, &c.

Manchester.

EXPERIENCE IN THE USE OF COCAINE.

BY WALTER EDMUNDS, M.C., F.R.C.S.

IN applying cocaine subcutaneously for the production of local anæsthesia, it is not advisable to use a stronger solution than 5 per cent.—at least, such is my experience; for in my earlier cases in which this strength was used constitutional symptoms were never seen; but when, owing to the anæsthesia in one case not being sufficient, a stronger solution was, as a rule, adopted, occasionally there occurred one or more of the following symptoms: pulse becoming very rapid, weak, and almost imperceptible; sense of faintness and feeling of distress in the region of the heart; blueness of lips; cold perspirations; restlessness, amounting almost to convulsive movements; and dilated pupils. Happily, these symptoms never lasted very long; but as nothing of the sort was seen with a 5 per cent. solution, it seems better not to go beyond that strength. Cocaine will entirely prevent the pain of the injection of tincture of iodine into the tunica vaginalis for the cure of hydrocele. In two cases five grains of cocaine dissolved in fifty minims of water was injected through the cannula after the fluid had been drawn off. When after the lapse of five minutes tincture of iodine was injected, there was no pain or feeling of faintness, nor were there any constitutional symptoms from the cocaine. The iodine and the iodide of potassium in the tincture of iodine react with the cocaine chemically, but these changes do not prevent the cure of the hydrocele. It is true that the injection of a saturated solution of carbolic acid in glycerine into a hydrocele sac does not cause pain; but this treatment sometimes fails; indeed it had done so in one of these cases. Cocaine is of special value when the patient is too ill for a general anæsthetic to be administered with safety; it might be thought that constitutional symptoms would be especially apt to occur in these cases, but it is not so. In a child greatly reduced by suppuration about the hip, an abscess was opened under cocaine without pain and without any bad symptoms; and in the case of a man weakened by repeated over-distension of the bladder from enlargement of the prostate, a drain was inserted into the bladder above the pubes under cocaine without pain and without any constitutional symptoms. It is desirable, when cocaine is administered, that some responsible person be told off to converse with the patient, and to attend only to his general condition.

Lambeth-palace-road, S.E.

CASE OF TWINS WITH COMPLICATED PRESENTATION AND ASPHYXIA NEONATORUM; RECOVERY AFTER THREE HOURS AND TWENTY-FIVE MINUTES.

BY H. B. MAUNSELL, L.R.C.P. & S. ED., L.F.P.S. GLAS.

ON the morning of Nov. 2nd, 1887, I was called to attend a private patient, Mrs. W——, who is a small and very delicate woman. She had been married twelve years, and had had four children and one miscarriage; the forceps were used in the first case, and she suffered from post-partum hæmorrhage after the birth of the fourth child. On arriving I was informed that "the child (female) was born, but that the after-birth had not yet come away." I found on examination that there was another child presenting by the arm. I was successful in returning the arm, but soon with a gush of liquor amnii there appeared two loops of the cord; I failed to return these. I then employed the forceps and delivered at once. The child was apparently dead, no pulsation being felt in the cord, and no sounds of the heart or signs of breathing detected; but as I had previously heard the heart sounds I thought there might be some chance, however slight, of resuscitating it. Therefore the cord was immediately tied, and I used hot and cold water douches, artificial respiration, and (by the advice of Dr. Morris) inflation of the lungs. There was no response till nearly three-quarters of an hour after birth, when there was a slight twitching of the muscles of the mouth, which was soon followed by convulsive gasps. By continuing the above treatment the child gradually improved, so that I was able to leave it at 12 o'clock to the care of an attendant, thus having worked for three hours and twenty-five minutes. I have called on several occasions since, and am glad to say both children are doing very well. I may add that the cord of the female was very slender and only about twelve inches long, whilst that of the male was very thick and measured about fifty inches. In conclusion, I would like to draw attention to the fact that perseverance is often crowned with success even where there may appear to be no hope.

Sherborne.

TRAUMATIC AXILLARY ANEURYSM; LIGATURE OF SUBCLAVIAN; RECOVERY.

BY J. H. BARTLET, M.D. LOND.,
SURGEON TO EAST SUFFOLK AND IPSWICH HOSPITAL.

A. B——, aged thirty years (height 6 ft. 1 in., weight nearly 17 st.), was thrown from a high dog-cart in November, 1885, and dislocated his left shoulder into the axilla. His usual medical attendant reduced the dislocation under ether. For a long time considerable swelling remained from the con-

tusion, and the patient never obtained free use of the arm. On March 6th, 1887, I was called to meet his medical attendant, at a distance from Ipswich, to consult about an aneurysm which had formed in the left axilla the size of a large orange. The skin was tense and discoloured. There was distinct pulsation in the tumour and in the brachial artery, but it was very feeble and variable in the radial and ulnar arteries. The whole limb was œdematous. The man suffered great pain, and could only get relief by resting on his elbows and knees. I advised the immediate ligature of the left subclavian artery. The operation was postponed, however, until March 9th, 1887, on which day, assisted by three medical friends, I proceeded to ligature the left subclavian in the third part of its course. Having made a free incision, above and parallel to the clavicle, I attempted to reach the vessel in its usual position, but found that in consequence of the great amount of fat, and of the shoulder being pushed up by the very large aneurysm and the vessel drawn down from its normal situation, I was unable to do so. I therefore extended the incision, and applied the ligature from below the clavicle. The pulsation in the aneurysm and in the brachial artery immediately ceased. The patient soon obtained relief from pain, and the axillary tumour gradually diminished. The pulsation in the radial artery was observed by his medical attendant within a fortnight from the operation. The man is now (Dec. 1887) in good health; he has not yet full use of his left arm, but the limb becomes gradually more free, and the circulation continues to improve.

Ipswich.

PLACENTA PRÆVIA AND TWINS IN A PRIMIPARA.

By JAN. D. MACKAY, M.B., C.M.

SOME time ago I was called to Mrs. M——, a primipara, aged thirty-seven. I found her in bed, and bleeding somewhat freely in gushes. As I had another somewhat urgent case on hand, I administered a quarter-grain morphia pill, and on returning in a few hours found that the hæmorrhage had quite ceased. A few weeks afterwards I was again summoned, and found her bleeding copiously; but she had no pains whatever, and it was now her full time. I again administered a morphia pill, and waited an hour and a half, when, the bleeding still continuing and rather increasing, I proceeded to examine. I had already heard the fœtal heart distinctly above the umbilicus, but faintly below. On examination I found the external os slightly patulous, but the internal os barely admitted my finger tip, and I could distinctly feel the placenta covering the os and attached round its margin. I administered chloroform with the help of a female neighbour, the only assistant I could get, and proceeded to digital dilatation of the os; and, as soon as it would admit my hand, I felt the head above the placenta, and found that the cord was pulseless. So, seizing both feet with my left hand, I turned and delivered a fairly large, still-born female child. In doing so I had felt in utero what I took to be a large clot. But, finding the uterus remained large after delivery, though hard, I examined and found the bag of membranes of another child coming down. I ruptured the membranes, turned, and delivered another female child alive. Shortly afterwards two placentæ came away. There was nothing peculiar in the attachment of the funis in either.

Hornby, Lancaster.

SALOL IN CHRONIC RHEUMATISM.

By JOHN COCHRANE, L.R.C.P. & L.R.C.S. ED.,
MEDICAL OFFICER OF THE PARISH OF STRATH, SKYE.

THE treatment of *chronic* forms of rheumatism being a sort of opprobrium to the profession, I would like to bring under notice the remarkable efficacy of the drug lately introduced into this country for the treatment of different forms of rheumatism. Although one does not like to attach too much importance to its effects in one case alone, still the case I used it in was so severe, and seemingly not amenable to the usual remedies, that I was struck with the speedy improvement on the administration of only a few doses of this drug, called "salol."

Mr. J. R——, a gentleman of robust physique and temperate habits, was seized with an attack of rheumatism, which attacked first the back of the left thigh, and afterwards settled in the calf of the leg. This pain was most agonising at times, and very often prevented sleep at night, although every means possible was adopted to assuage it. Even repeated hypodermic injections of morphia, the internal administration of chloral, bromide of potassium, &c., and the use of numerous liniments, were of no avail. This sort of thing continued through last spring and summer with more or less abatement, and at last I advised him to go to Strathpeffer Wells, where he was also under the care of one of the local medical men. When he went there at first the old symptoms returned with redoubled severity, but at last were gradually reduced under treatment. He then returned home here, and has had occasional severe twinges of pain more or less up till the time I put him on the salol. I was not very sanguine about it, however, but was agreeably surprised to find it had relieved him at once. He is quite pleased to think that he is so well as to be able to go about in the most severe weather, such as we have been experiencing in Skye. He says he has now no pain at all since taking it, and never felt so well in his life. He had an attack of lumbago several years ago, but was never laid up with any other illness. This attack was brought on through sitting on the wet grass one day in the beginning of spring, when the air was damp and cold.

Skye.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum propriis collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

ST. BARTHOLOMEW'S HOSPITAL.

ACUTE INTESTINAL OBSTRUCTION (STRANGULATED OBTURATOR HERNIA?); LAPAROTOMY; RECOVERY.

(Under the care of Mr. MORRANT BAKER.)

TAKING all the circumstances of the following case into consideration, it seems most likely that it was one of strangulated obturator hernia, although its nature was not suspected before operation. The notion is encouraged by the fact that other herniæ were present. However this may be, the point of greatest interest lies in the finding the obstructed bowel, and relieving it by the performance of the operation. The case was obviously a hopeless one without operative interference, and can therefore be added to the list of those, unfortunately in a minority, in which the operation of laparotomy for acute intestinal obstruction of obscure nature is the means of directly saving life. For the notes of the case we are indebted to Mr. Robert Cross, late house-surgeon.

W. D——, aged forty-five, warehouseman, was admitted on the afternoon of April 30th, 1887. The patient, a strong, muscular man, stated that he had been ruptured for many years on both sides, and had worn a truss for about the last eight years. The herniæ often came down, but he had never had any trouble in reducing them. He had also a small reducible umbilical hernia. The patient was quite well up to the morning of April 25th (five days before admission), when, after working for about half an hour, he was suddenly seized with severe abdominal pain, referred to the umbilicus, and thence downwards to the right side of the pubes. The pain was of a dragging character, and thinking that it might be due to the hernia on that side not being quite all reduced, he lay on his back and readjusted his truss, but without relief. The pain continued all that day and the next, but he still remained at work, and vomited a little on both days. On April 27th the pain was worse, and the vomiting more frequent. On the 28th and 29th the pain and vomiting had increased. On the 30th (day of admission) the patient was much worse and very weak, the pain being intense, and he had vomited at least twenty times in the twenty-four hours.

State on admission.—The patient is much collapsed, with

all the symptoms of acute intestinal obstruction. The abdomen is somewhat distended, and acute pain is complained of, extending from the umbilicus to the right side of the pubes. Tongue thickly furred and dry. Pulse 84, weak. Temperature 99·6°. Frequent vomiting of a green, foul-smelling liquid. Bowels not open since April 22nd (eight days). Patient does not remember passing flatus after the onset of the pain.

Operation.—The patient being under the influence of chloroform, the two inguinal herniæ and the umbilical were carefully examined, and found to be easily and completely reducible. It was therefore decided to explore the abdomen by abdominal section. An incision was made four inches long in the middle line, midway between the umbilicus and pubes, and the peritoneal cavity opened. On introducing the finger through the abdominal wound, nothing was found in the region of the internal abdominal rings to indicate any strangulation; but on careful examination as far as the finger could reach, there was found on the right side a sense of resistance as if the cores of intestine were tethered in some abnormal way not felt elsewhere. The wound was therefore opened more widely, and the cores adjacent to the tense portion held on one side as far as possible so as to examine more thoroughly. In doing so, and in making some traction on the tense bowel, which seemed to extend into the pelvis below the right internal abdominal ring, the coil suddenly came into view, and presented to the eye at once an intensely inflamed spot of about the size of a florin with dusky centre. The inflamed surface was rough, as if it had been firmly adherent and tightly gripped.

The piece of intestine was immediately returned, and the abdominal wound was stitched up in the usual manner.

May 1st.—The symptoms were immediately relieved by the operation. The patient has passed a fairly comfortable night. No sickness. Abdominal pain much less.

The further progress of the case does not require detailed description. Small doses of opium were given whenever the patient was restless or complained of much pain. The bowels were open naturally on the third day after the operation; after this more or less regularly every day. The abdominal wound healed well, the patient making an uninterrupted and rapid recovery.

ST. GEORGE'S HOSPITAL.

A CASE OF NEPHRO-LITHOTOMY, FATAL FROM TUBERCULOSIS; REMARKS.

(Under the care of Mr. PICK.)

For the following notes we are indebted to Mr. Bull, surgical registrar.

G. A——, aged twenty-three, a chair-polisher, was admitted in November, 1886, with the following history. Four years previously he was seized suddenly while at work with pain in the left loin, which "doubled him up" and obliged him to to stop work. A large amount of blood was passed in the urine at the time, but this ceased in a few days. The pain, however, continued, and for this he was an in-patient at several London hospitals, without getting relief. In 1884, gravel was passed in the urine, but no blood or gravel has been detected in the last two years. In 1883, he had an attack of gonorrhœa, which soon yielded to treatment, and a few weeks afterwards he broke out in a pustular eruption, chiefly over the forearms and the legs, but it was also scattered irregularly over the body. These pustules dried up and formed crusts, which eventually dropped off, leaving small depressed cicatrices. This skin affection lasted about four months, and then disappeared without special treatment. There was no history of specific manifestations. During the last eighteen months the pain in the loin has been so severe that he has been unable to work, and his life has become a burden to him.

On admission the man presented an anæmic appearance, with an expression of constant suffering. There was a mass of enlarged glands in the posterior triangle of the neck on the left side. On the extensor surface of either forearm, especially over the olecranon, was a series of small, mostly circular, depressed scars, with a central deeper punctum. There was no hypertrophy of scar tissue, and but slight pigmentation. Similar cicatrices were seen on the buttocks and thighs, and on the outer side of the left and the inner side of the right leg; here, however, the scars were flatter, larger, and more pigmented. These scars were thought to be the result of a pustular dermatitis, probably the scrofulo-derma pustulosum of Duhring. There were no signs of active lung disease. Urine: sp. gr. 1016; acid; trace of albumen; deposit on standing, which under the microscope consisted of stellate and acicular phosphates, a few crystals of oxalate of lime, and a little blood and pus. The man lies in bed on his left side, with his left thigh strongly flexed, and his body arched so as to make a concavity on the left side and a lateral curve to the left of the whole spinal column. No tumour could be felt, but any attempt to make an examination was met by spasmodic contraction of the abdominal muscles.

Under ether, the bladder was sounded, with negative results, and no tumour could be felt in the loin. The man's condition was so miserable, that it was decided to explore the left loin; and in December Mr. Pick cut down on the left kidney, and felt a stone in the lower part of the sinus. A fine bistoury was passed down to this, and by a small incision a stone was removed. The incision did not pass through the kidney substance. The calculus was heart-shaped. The two angles of the base were fixed in two calices, and the apex projected into the dilated extremity of the ureter, and was covered with fine glittering crystals of iridescent phosphates. The stone was a uric acid calculus, and weighed three drachms. The wound was dressed antiseptically, a drainage tube having been introduced.

A few days afterwards the patient had an attack of pneumonia, and after this had subsided the lungs were found to be breaking down, and he soon developed all the symptoms and signs of phthisis, of which he died in March, 1887. The wound in the loin never healed, and discharged urine and pus continually in small quantities. About one month after the operation he again began to have pain in the penis, and passed three small calculi the size of peas. This did not give him complete relief, and though greatly benefited by the operation and suffering but little during the last three months of his life, he was never quite free from pain.

Necropsy.—The lungs were studded with small grey tubercles, and numerous cavities existed. There was an abscess in the left psoas muscle not connected with the kidney, ureter, or spine. The right kidney was healthy. The left kidney contained a small calculus in the pelvis; there was some pyelitis and a few drops of pus; a sinus passed from the pelvis of the kidney to the left loin.

Remarks by Mr. PICK.—There are several points of interest and worthy of note in the above case. In the first place, the diagnosis of the affection was somewhat obscure, as was evidenced by the fact that he had been a patient in several of the metropolitan hospitals without a clear determination of his disease having been arrived at. The main difficulty seemed to be to decide whether the patient was suffering from scrofulous kidney or renal calculus, the presence of scrofulous glands in the neck and the general appearance and physique of the patient seeming rather to point to the former disease. Fortunately, as regards the treatment, an exact diagnosis was unnecessary. The pain and inconvenience caused by the disease were such as seriously to interfere with the patient's welfare, and, in fact, as he stated, his life had become a burden to him. And, moreover, supposing the disease was calculus, it had existed sufficiently long to make it clear that a natural cure by expulsion could not take place. Under these circumstances there seemed every justification for an exploratory operation. As regards the operation itself, nothing much requires to be said further than that I preferred the transverse incision to the oblique or vertical one—that is to say, an incision from the anterior extremity of the last rib transversely backwards to the border of the erector spinæ, not running parallel to the rib, but in such a direction that its posterior extremity was about an inch, or rather less, below this bone. This incision seems to me to give more room for exploring the kidney than the slight oblique one, which is often recommended, parallel to and three-quarters of an inch below the rib. Having exposed the kidney, I found no difficulty in exploring the whole of its posterior surface with my finger in search of any inequality or increased hardness which might indicate a stone. Having found none, and having ascertained that the kidney was of normal consistence throughout, I at once passed my finger to the hilum of the kidney, and there in the dilated extremity of the ureter external to the kidney structure I distinctly felt a hard nodule, and on introducing a needle felt it grate on calcareous matter. In this case I had no alternative, therefore, but to cut through the fibrous tissue of the ureter rather than the secreting structure of the kidney, and the result was that a fistula remained during the rest of the life of the patient—a further proof of what has been laid down

by Mr. Morris and others, that it is better, when possible, to open the secreting structure and not the pelvis of the kidney. It will be noticed that this man's symptoms were not completely relieved, that he passed three small calculi during the remainder of his life, and that still another calculus was found after death in the kidney. The fact that renal calculi are very often multiple should always be borne in mind in the operation of nephro-lithotomy; and after the extraction of a calculus, a careful exploration of the kidney should be made, to ascertain, if possible, whether any other stones exist. In this case the calculi were so small that they escaped detection, and no doubt had been prevented from escaping by the larger stone blocking up the commencement of the ureter; but still one of them remained in the kidney, even after the removal of the obstruction, and would undoubtedly have increased and given rise to a recurrence of his troubles had his life not been cut short by the supervention of the tuberculosis.

YORK COUNTY HOSPITAL.

TUMOUR OF LEFT PAROTID.—MALIGNANT DISEASE OF LOWER JAW.—MYELOID SARCOMA OF LOWER JAW.

(Under the care of Mr. JALLAND.)

THE following notes were taken by Mr. E. F. Morris, house-surgeon.

CASE 1.—*Large tumour of the left parotid; removal; recovery.*—Eliz. A——, aged thirty-nine, was admitted on Dec. 16th, 1886. She gave the following history. The tumour commenced twenty years ago as a small lump below the lobe of the left ear; it grew very gradually until last year, when it commenced to grow rapidly, being then the size of a small orange. It gave little inconvenience until a year ago; since then she has had much pain in the back of the head and over the left side of the face. Her previous history was not good: she has had, generally, much pain over the liver, but has had no definite illness. Her mother is said to have died of cancer of the stomach; her father is alive and well; one sister went to Leeds for medical treatment (most likely for chlorosis); brothers healthy. The patient is unmarried.

The patient—a pale, anæmic-looking woman—has a large lobulated swelling the size of a small cocoa-nut over the left parotid; movable freely from above downwards, but more fixed laterally. It involves the whole of the left parotid gland. It is elastic to the touch, more so in some places than others; skin not involved. It moves with the jaw. Inside of mouth free. It dips down under the angle of the jaw.

Dec. 21st.—Ether having been administered, Mr. Jalland removed the tumour by one longitudinal incision over the centre of the growth. Attachments taken up one by one, tied in two places, and divided between. Hæmorrhage slight. The tumour went somewhat behind the ramus of the jaw, but not very deeply. The carotid artery was found pulsating beneath the tumour. The whole of the parotid was involved. The tumour upon removal weighed nine ounces, and consisted chiefly of cartilage.

22nd.—This morning the patient is very well, but has facial paralysis of the left side. Temperature 98·4°. Wound dressed with iodoform and wool; it looks well.

29th.—Wound dressed this morning. Temperature 99·6°. Some œdema. Drainage tube removed. Paralysis remains the same.

Jan. 6th, 1887.—Dressings removed to-day. Wound quite healed; some puckering over sterno-mastoid. Facial paralysis remains *in statu quo*.

12th.—Discharged to-day. Wound soundly healed, but unfortunately the paralysis remains.

CASE 2. *Malignant disease of lower jaw; partial removal of jaw; recovery.*—Eliz. B——, aged sixty-three, was admitted on May 12th, 1887, with a tumour on the left side of the lower jaw. About the end of last November she noticed that the left molar teeth ached. Some discharge made its exit at the root of the middle molar. She went to a medical man, who extracted the tooth, and gave her some mouth wash. The other teeth became involved, and were also removed, and the lotion was continued. About this time the jaw began to ulcerate and thicken, and a small abscess formed beneath the jaw, and she has since had a sinus discharging beneath. It is stated that her father died of some "gathering" (position unknown); her mother died after confinement; brothers and sisters well. Her previous history was very good. One son was in the York County Hospital, with a swelling on the side of the nose, which was removed.

The patient, a healthy-looking woman, was admitted with swelling of the lower jaw, involving chiefly the bone between the median line and angle of the left side, and passing well into the floor of the mouth; it was firm and elastic to touch externally. There was an ulcerated patch the size of a shilling beneath the jaw, discharging a thin serous exudation. Internally the swelling involved the whole alveolar border of the jaw; no enlarged glands could be felt.

May 17th.—Ether having been administered, Mr. Jalland removed the body of the jaw: the incisor teeth were also extracted. An incision was then made through the lip (centre of lower), and then carried along the border of the lower jaw to the angle. This was reflected, and then the jaw was divided at the symphysis and the growth dissected from the floor of the mouth. The lower jaw was then divided just above the angle, and the growth removed. There was very little hæmorrhage; the inferior dental artery was controlled with perchloride of iron; the labials and facial arteries were easily tied. The growth was about the size of a hen's egg, firmly attached to the body of the jaw; nodulated on the part in the floor of the mouth; little or no ulceration; no glands involved.

18th.—Wound dressed to-day; looks well. Patient comfortable. No discharge; no hæmorrhage. Temperature 100°.

20th.—Hair-lip pins removed this morning. Wound looks very well.

24th.—Patient well. Incision nearly healed.

June 3rd.—Patient has made an uninterrupted recovery. Gone out to-day quite well. She has fair movement of the lower jaw, and not much disfigurement. No sign of any return of growth.

Unfortunately no microscopical examination of the growth was made, as the tumour got mislaid.

CASE 3. *Myeloid sarcoma of lower jaw; removal of portion of jaw; recovery.*—E. C——, aged twenty-six, married, was admitted on Oct. 18th, 1887. She was first seen by Mr. Glaisby, the dental surgeon, in the out-patient room, and afterwards by Mr. Jalland, who advised her to come into the hospital.

The growth, which involves the lower jaw and extends from the canine to the last molar tooth on the right side, is of five months' duration, and the only cause the patient can give for its occurrence is picking her teeth with a pin. The growth extends as above, and is about the size of a walnut. No glands involved.

Oct. 25th.—Ether having been given, Mr. Jalland proceeded to remove the growth and the portion of jaw from which it was growing. An incision was made through the chin, and extending along to the angle of the jaw on the right side. The jaw was then divided on a level with the right incisors, freed from muscles, &c., and again divided with bone forceps just above the angle. There was little hæmorrhage. The wound was brought together with hair-lip pins, and the wound dressed with iodoform and salicylic wool.

Nov. 8th.—The temperature went up to 102·4° the day after the operation, but otherwise the patient made a perfectly good recovery. There was no sign of any return of the growth, and the incisions have left scarcely any mark.

Remarks by Mr. JALLAND.—In THE LANCET of August, 1885, were published the notes of a case in which I removed nearly the whole of the lower jaw and part of the floor of the mouth for epithelioma. This patient, William N——, came again to the hospital last November with a small recurrent growth on the inner side of the left cheek about the size of a two-shilling piece, this being preceded by a patch of ichthyosis. This I removed with a portion of the cheek, and the man is now well. It is interesting to note that, notwithstanding the large extent of the original growth, the man should remain free from any return of the disease for over two years and a half.

LITERARY ANNOUNCEMENTS.—Dr. Klein's "Histology" is, we learn, now being translated into the Italian language. The work has already been translated into French, German, and Spanish.—A new and important work, entitled "Pictures of East Anglian Life," by Mr. P. H. Emerson, B.A., M.B. Cantab., is announced for publication early in the present year.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Arterial Angeiomata of Tongue and Tooth.—Congenital Fatty Tumour.—Double Fatty Hernia.—Bone and Joint Disease in Animals.—Carcinoma of Obliterated Hypogastric Vessels.—Tubercular Tumours of Tendon Sheaths.—Pneumothorax in a Child.

THE annual general meeting was held on Tuesday last, Sir James Paget, Bart., President, in the chair, when the officers and new members of Council were elected.

Mr. F. TREVES showed specimens of Angeioma in the Mouth, two of the Tongue, and one in connexion with the Tooth. They were arterial angeioma, and Mr. Butlin made no mention of them in his book. The first specimen came from a man aged fifty-seven, who belonged to a remarkable family of nose bleeders without being true hæmophilia. For the last four years the epistaxis has ceased, and instead he had bled from the tongue, at least fifty times during this period. This bleeding was seen to be due to vascular growths at the posterior part of the tongue chiefly, where two large ones existed. Treated with chromic acid the growths receded and the lingual bleeding disappeared, to be replaced by the epistaxis, which had continued ever since. Baumgarten had written a treatise on epistaxis, in which he maintained that erosions and vascular spots situated on the cartilaginous septum or on the nasal floor, or sometimes over the inferior turbinate bone, were the causes of the epistaxis; they might be regarded as minute arterial angeioma like those on the tongue. The second case was that of a woman aged thirty-one, on whose tongue, though well developed, there existed a small raspberry-like body at the edge, which was compressible, and easily filled again. Frontal headache was a distressing symptom till the tumour appeared, when the hæmorrhage seemed to relieve the headache, but the bleeding required treatment. Arterial bloodvessels collected together in a lump were the microscopical appearances. In the third case a woman aged twenty-nine also suffered from headache, and the tumour, the size of a large cherry, appeared during pregnancy between the two right incisor teeth of the upper jaw, and had loosened the teeth; it was pulsatile, unlike the others. It bled only on eating at first, but afterwards spontaneously. The arterial angeioma was removed, the right lateral incisor coming away with it. The angeioma grew from the periodontal membrane about the neck of the tooth. Mr. Salter mentions in Holmes' System of Surgery such angeiomata.

Mr. F. S. EVE showed a specimen of large Congenital Fatty Tumour, removed from a child aged thirteen. It grew in the left hypochondrium, and was lying between the muscular planes in this region, the internal oblique and transversalis being separated. Such tumours between two pectoral muscles and between the muscles of the calf had been described, but these were the only ones he knew. It had not left any ventral hernia.—Mr. RICKMAN GODLEE had seen fatty tumours under the gluteus maximus and the deltoid.

Mr. J. HUTCHINSON, jun., showed a specimen of Double Fatty Hernia in the Linea Alba. One tumour was the size of a small apple, and lay in the subcutaneous fat, from which it was perfectly distinct, both in origin and appearance; the aperture in the aponeurosis through which it had passed was quite small. The other tumour was seated at the umbilicus. Both had sprung from the subperitoneal fat, and in passing forwards had stretched the peritoneum, and in each case had drawn a process of the latter membrane with them. By a series of specimens shown at the Society three years ago, Mr. Hutchinson had demonstrated the same tendency of fatty herniæ in the femoral and inguinal canals to draw down peritoneal tubes, and hence to lead to the formation of true herniæ. Commonly, these fatty herniæ, derived from the subperitoneal fat, and having no true sac, are mistaken for omental herniæ; as a rule, they are irreducible, and they are curiously accompanied in some cases by abdominal pain, nausea, &c. Instances in which the operative removal of fatty outgrowths has been followed by complete relief of the symptoms have been recorded by König and Lücke. It is probable that traction and snipping of small nerves in the peritoneum produce these symptoms.

Mr. BLAND SUTTON showed some specimens of Bone and Joint Diseases. The first was the tibia and fibula of a horse, which three months before its death was kicked by a horse on the inner side of the leg over the tibia. There was a skin wound as the result of the kick, which healed quickly, and with trifling suppuration. As soon as the wound healed the tibia began to enlarge, and continued to do so for three months: the horse suffered considerable pain, and as the case seemed hopeless it was killed. The condition of the tibia is interesting. The bone is three times larger than it should be, and its exterior is roughened by small bony outgrowths. On section the outline of the original shaft can be defined, and outside this a large mass of new bone has been deposited; this new bone has surrounded the slender fibula, but the new formation of bone is strictly limited to the tibia. The second specimen was a greatly enlarged femur from a monkey; the bone was so extremely soft that it was divided easily with a knife throughout its length. The section is very instructive; lying in the centre is the true shaft of the femur apparently necrosed, but embedded and closely adherent to new bone, which surrounds it evenly on all sides. The adventitious bone exceeds the original shaft three times. The new bone is roughly limited above and below by the epiphysial lines, hence though the shaft is so thick the condyles and head of the bone preserve their proper proportions. Both femora and one humerus were affected, the remainder of the skeleton seemed normal. The tibia of the horse and the femur of the monkey were shown, because it seemed possible that they represented early stages of a rare condition described in man as necrosis without suppuration—quiet necrosis. The third specimen was the elbow joint of a lion twelve years old, affected with osteo-arthritis. The cartilage had in a great measure disappeared from the joints, and the cartilage at the periphery of the articular surfaces was distinctly "lipped," the synovial membrane presented villous fringes of great length, and lodged in the recesses of the joint were those curious cartilaginous bodies so common in this affection in man. All the joints of the forelimbs of this lion were similarly affected. The fourth specimen was a typical example of the condition to which the apt and expressive term "lipoma arborescens" (Müller) is applied. The specimen came from the shoulder joint of an old man affected with osteo-arthritis, and all stages from simple villous processes of the synovial membrane to pedunculated masses of fat can be clearly recognised.—Dr. NORMAN MOORE had never seen lemon-seed bodies nor lipomatous fringes in genuine gout.—Mr. GODLEE asked whether the epiphysial lines in the monkey's femur were not a little rachitic.—Mr. W. ADAMS agreed with Dr. Moore.—Mr. R. W. PARKER alluded to a specimen of Central Necrosis in Children, in which a condition of chronic osteitis obtained in the tibia.—Sir JAMES PAGET referred to a case of traumatic injury to the tibia which in the course of fifteen years had developed into a condition of genuine chronic osteitis, presenting a spongy, light, and porous texture, the other bones not being affected.—Mr. EVE said that a dry form of caries might explain such a condition, and due to injury.—Mr. BLAND SUTTON said that the lower epiphysial line was undoubtedly enlarged, but not like that seen in other cases of rickets, where many bones were affected.

Dr. HALE WHITE showed specimens of Carcinoma of the Obliterated Hypogastric Arteries and Umbilical Vein taken from a patient who had wasting, abdominal pain, vomiting, and constipation, and in whom some nodules could during life be felt in the rectus muscle. The patient gradually sank and died. The necropsy showed primary carcinoma of the pancreas, with numerous secondary hard masses just under the peritoneum, some of which were those recognised during life. But the point of chief interest was that the two obliterated hypogastric arteries and vein were both converted into cords of hard secondary growth; this was not due to spreading from neighbouring nodules. This seemed to be a very interesting and rare example of secondary growths particularly affecting degenerate structures.

Mr. CHARTERS SYMONDS showed a Tubercular mass removed from a Tendon Sheath from a girl aged thirteen, whose flexor tendon of the index finger was affected with the tumour having the clinical appearances of a ganglion. It was incised and removed, after seeing the nature of its contents. The microscope showed a definite tubercular structure. The palmar bursa of the other hand was similarly affected. Other cases which also seemed at first to be ganglia were mentioned.—Mr. F. TREVES spoke of cases in which the caseation had far advanced, and said but few

BEST CO

cases terminated so favourably as Mr. Symonds', as might be ascertained by a study of the literature. Beger's monograph was referred to.

Dr. QUARRY SILCOCK showed a specimen of Syringomyelia to prove that the formation of a tube-like cavity, occupying the posterior columns of the cord, and extending through a considerable length of the cord, may arise through excavation of newly formed connective tissue which has developed in that situation. The specimen came from a Guardsman aged twenty-three, who had broken his neck in diving into the river Thames. The body of the fifth cervical vertebra had been crushed and somewhat displaced backwards, giving rise to a projection in the spinal canal, where the cord was much flattened. Sections of the cord at the level of the second cervical vertebra showed even to the naked eye an elongated slit shaped cavity, lying immediately inside and parallel to the right posterior root. There was a general sclerosis of the cord, the disorganisation was most marked in the right posterior column—that is to say, in the neighbourhood of the cavity. The walls of the cavity were formed of finely reticulate connective tissue with abundant nucleation; there was no lining membrane, and the inner surface was ragged. The central canal had no connexion with the cavity; from the connective tissue around the latter fibrous stands stretched into the posterior root of the central grey matter and the neighbouring portion of the posterior column. At the level of the sixth vertebra the cavity was considerably smaller in size, but the structure of its walls was essentially the same. The cavity ended below in a mass of felted sclerotic tissue. Mr. Silcock said that a cavity of this nature and in the situation of this had been ascribed to the persistence of a portion of the cavity which, in the embryo, extended as a fissure between the posterior columns to the periphery of the cord. He thought his case, however, belonged to another class.

Dr. ORMEROD showed a specimen of Pneumothorax from a child aged six months, and due to rupture of a phthisical cavity. The cavity, the size of a marble, existed in the middle lobe of the right lung, and a septum, evidently composed of an occluded artery, was discovered. There were caseous bronchial glands and tubercle in the spleen.—Dr. DOUGLAS POWELL said in his case of cavity in an infant aged seven months there was a strong family history of phthisis.—Dr. NORMAN MOORE said his case occurred in a child aged eleven months; the condition was a rare one.—Dr. ANGEL MONEY mentioned a case in a child aged three months; it occurred at the left apex, and the child died from hæmorrhage.—Dr. ORMEROD, in reply, said the mother was phthisical.

The following card specimens were exhibited:

Dr. HALE WHITE, for Mr. Beaven Rake: (1) Ankylostomum Duodenale—intestine and parasite from a patient affected with the above; (2) Tubercular Ulceration of the Tongue.

Dr. PENROSE, for Mr. E. Owen: Lumbar Hernia in the Track of a Lumbar Abscess due to Spinal Caries.

Mr. W. K. SIBLEY: Symmetrical Lipomata.

The following is a list of officers and council for the year 1888:—President: Sir James Paget, Bart., F.R.S. Vice-Presidents: Thomas Henry Green, M.D., J. Hughlings Jackson, M.D., F.R.S.; Joseph Frank Payne, M.D.; Richard Douglas Powell, M.D.; William Morrant Baker; Marcus Beck, M.S.; Sir Joseph Lister, Bart., D.C.L., LL.D., F.R.S.; Henry Morris, M.B. Treasurer: William Cayley, M.D. Honorary Secretaries: Sidney Coupland, M.D.; Rickman John Godlee, M.S. Council: Charles Edward Beevor, M.B.; Henry Radcliffe Crocker, M.D.; David White Finlay, M.D.; James Kingston Fowler, M.D.; James Frederic Goodhart, M.D.; Walter Baugh Hadden, M.D.; Edward Emanuel Klein, M.D., F.R.S.; Stephen Mackenzie, M.D.; Joseph Arderne Ormerod, M.D.; William Hale White, M.D.; William Anderson; Anthony Alfred Bowlby; Henry Trentham Butlin; Victor Horsley, B.S., F.R.S.; John Hammond Morgan, Bernard Pitts, M.B.; A. Quarry Silcock, M.D.; John Bland Sutton; Charters James Symonds, M.S.; Frederick Treves.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

Contagion of Cancer.—Bacteriological Water Tests.

A MEETING of this Society was held on Friday, Dec. 16th 1887.

Mr. WYNTER BLYTH, Medical Officer of Health for Marylebone, read a paper on the Contagion of Cancer, in which he stated that he had held the belief of the possibility of cancer contagion for many years. The evidence was partly direct and partly indirect. The direct evidence was of an experimental and positive nature, as when inoculations were successful. The experiments of Langenbeck and Collin on dogs were then detailed, and some remarkable instances of infection of the human subject by accidental inoculation. The question was next discussed of infection of healthy parts by diseased; and the author cited numerous instances, arguing that there were evident proofs of contagion, so far at least as concerns the grafting of disease from part to part on the same body. The cancerous infection often started from wounds, and cases were detailed in which the general course of the malady was dealt with. Medical literature abounded with instances of cancer sequence among members of the same family—mothers and daughters, fathers and sons, husbands and wives; they were usually explained by the doctrine of hereditary predisposition—a term that meant nothing, which has obscured etiology and veiled for centuries the now accepted contagious nature of tubercle; the real fact being that, from the necessities of the case, members of a family were usually brought up under the same roof in continual contact, and there were under such circumstances ample opportunities of "cancer grafting," the more so as cancer is one of those diseases against which hitherto no pretence at precaution has been taken, the discharges commencing at the real injury and gradually infecting the system, mimicking the course of ordinary septic poisoning. This admitted of easy explanation if we allowed that in these cases the knife or weapon had been contaminated by cancerous matter. Next in the chain of evidence was the number of cases in which the close contact of healthy and cancerous persons had apparently spread the malady. A house, the history of which he was well acquainted with, had three cancerous tenants in succession. A stranger, visiting frequently the last tenant, contracted cancer, and the niece of this person also developed cancer. Lastly, cases of so-called hereditary or family cancer from cancerous ulcers, the flux from uterine maladies, the scales from an epithelioma, fall where they will, float where they may, undisinfected. The cases of family infection were too numerous to be mere coincidences; whence the necessity of flying to some mysterious and remote influence descending through the generations, remaining latent through the best years of life, transforming the cellular elements into corrosive cankers, when the doctrine of contagion gave a simple and intelligible explanation.—In the discussion which followed, the President, Surgeon-Major Black, Mr. Mackey, Drs. Saunders, Smee, Collins, and Sykes took part. The further discussion of the paper was adjourned to the next meeting.

Mr. GUSTAV BISCHOF read a paper on the Extension of Time of Culture in Dr. R. Koch's Bacteriological Water Test by partial Sterilisation, with special reference to the metropolitan water supply, of which the following is an abstract. The culture of samples of water with gelatine-peptone has hitherto generally been limited to a maximum of three days, as the organisms, which liquefy the nutritive medium, as a rule, prevent distinction of colonies after that time. The author found that by extension of culture to nine days the colonies developed after three days were increased up to thirty times. This would not matter much in comparative tests if the increase were uniform in different samples; but as this is not the case, as the rate of increase is widely variable, different samples cannot be compared on the strength of numerical results. Neither can absolute numerical standards be laid down as a distinction of different qualities of water, and a bacteriological test to be satisfactory must therefore be a qualitative one, distinguishing between harmless and pathogenic organisms. No such test is known at present, but the increased yield of colonies by extension of culture is a step towards that end, because the larger the number of colonies which escape notice, the less can it be asserted that pathogenic organisms are absent. The extension of culture, as proposed by the author, is obtained by spreading a minute quantity of either potassic permanganate or spongy metallic iron upon those colonies, which encroach unduly upon the development of others, thus, in fact, sterilising them. Samples of potable water to be tested should for obvious reasons be taken as much as possible under the conditions under which the water is consumed. The companies' standpipe is not the proper place, more especially if water be distributed by the intervention of cisterns in which storage takes place. This consideration led to

BEST COPY AVAILABLE

another modification—viz., the comparative testing of different samples after being stored for a time in sterilised flasks. Although external contamination, which takes place in cisterns, is here excluded, the microphytes, for instance, in filtered metropolitan river water increased after storage by respectively three and nine days' culture, on the average at least 260 times more than those in parallel samples of unfiltered Thames water from Hampton Ferry. Experiments were also made with a filter charged precisely as at the works of one of the metropolitan water companies with materials supplied by them. The yield was the same as at the works, but the water in the experiments was the filtered supply of the New River Company after collection in a cistern. During nine weeks' continuous filtration no reduction of colonies could be obtained in the effluent water in the least approaching that which is constantly found when testing the metropolitan supply in the usual way. Dr. Burdon Sanderson stated in 1870 that no appreciable decrease of microphytes takes place by sand filtration, and the same was, broadly speaking, the result of the author's experiments. He argued that on theoretical grounds this should have been expected, as all filtering materials, on starting, necessarily contain an enormous supply of micro-organisms. There is no reason why these should be destroyed or rendered inactive, therefore they must multiply and contaminate the filtered water in course of time. That they are not, or to a small extent only, indicated by culture in gelatine-peptone, as hitherto practised, is not due to their absence, but to a failure in the test. Although it is disappointing that the figures which have for some time past been published as the result of sand filtration are unreliable, the author is of opinion that no blame can be attached to the water companies, but that they are doing all in their power to render their supplies as perfect as possible. The following conclusions were drawn: (1) No bacteriological water test can satisfy the demands of hygiene unless it is qualitative, distinguishing between harmless and pathogenic microphytes. No such test is at present known. 2. Merely numerical results without such distinction are entirely unintelligible, unless the time and other conditions of culture of each test be specified. 3. A small portion only of the colonies capable of growing in gelatine-peptone is indicated by three days' culture. 4. The ratio of colonies thus indicated by three days' culture to that of the total present appears to differ so widely in *different* samples that the numbers of colonies obtained from them cannot be compared with each other. 5. Instead of any such comparison, the changes taking place from time to time should be followed up in each sample separately. 6. Extension of culture beyond three days increases the reliability of the results; how far this holds good, and how far culture should be extended, we have at present not sufficient evidence to show. 7. The usefulness of results is probably still further increased by combination of extension of culture with storage in sterilised flasks for a certain time. 8. As regards the control of the working of sand filtration at water-works *any* bacteriological test to be of practical utility should be repeated at intervals certainly not exceeding a fortnight. 9. It is desirable for the purpose of such control to test the water entering and leaving each filter.—The President, Dr. Hill, opened the discussion, followed by Dr. Percy Frankland, but the continuation of the discussion was adjourned until the next meeting.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Case of Lymphadenoma.—The Fever of Over-exertion.

A MEETING of the Medical Section of the Academy was held on Nov. 18th, Dr. James Little, President, in the chair.

Dr. W. M. A. WRIGHT read some notes on a case of Lymphadenoma occurring in a girl aged twelve years and a half, whose family history was good, save that her father died in middle age from hæmorrhage caused by some chronic and very painful affection of the leg. The child was quite well until March, 1887, when her cervical glands enlarged, and she got a cough and began to look very ill. Dr. Wright saw her on April 26th, and found her suffering from diarrhœa, her temperature 103°, and her pulse 110. She was very anæmic, but had a bright malar flush; her anterior cervical glands were very much enlarged, nodulated, and hard; her post-cervical, axillary, and inguinal glands were enlarged. She spoke only in a whisper. She was excessively drowsy, and the skin over her abdomen was very dry and rough. No examination of the blood was made. On May 11th the pyæmia was unabated, and some pigmentary staining was perceptible in the sides of the neck, on the anterior fold of the axilla, and on the front of the abdomen over Poupart's ligament. On May 20th the staining had extended in the neck, in the thorax, and over the whole front of the abdomen, being a dark-brown over the clavicles, on the axillary folds, and in the lower part of the abdomen; lighter elsewhere. No sign of bronzing in face, forearms, hands or feet, or on the mucous membrane of the mouth. The pigmentation deepened in colour for six weeks, and then remained stationary until death, which occurred on Aug. 16th. After some remarks on the various points of interest in the case, Dr. Wright stated that he found no remedy of any use, though he had twice given arsenic until marked constitutional symptoms were produced.—Dr. GRAVES said he saw Dr. Wright's case, and the glands, though hard, had a feeling of elasticity, as distinguished from the dull feeling of the ordinary strumous glands. The tonsils were slightly enlarged.—Dr. A. W. FOOT observed that, while Dr. Wright's case appeared to have been very complicated, it was unusual to find ordinary lymphadenoma pyrexial, unless complicated with tubercular disease. He asked, however, as a clinical observation, whether Dr. Wright could distinguish with his fingers the separation of the glands. In benign cases the separation was perceptible and the glands shelled out, whereas in lymphosarcoma, which was essentially malignant, the glands were fused, capsules and all, and could not be separated. The length of the disease and the continuous character of the fever suggested the inquiry whether there was any suspicion of enteric complication more than the ordinary mesenteric implication.—Dr. WRIGHT, in reply, said the upper glands of the neck from ear to ear were not separable; though they felt as if they could be easily isolated, on deeper pressure they were fused together. However, in the lower part they were perfectly distinct.

Dr. KNOTT described at some length the train of Febrile Symptoms which he had seen in some cases to follow severe Prolonged Exertion, especially in the labouring classes, who were in bad training for much physical strain. When neglected, the symptoms of low fever sometimes existed, and led, after a year or more of lingering disease, to an ultimately fatal result. The author traced a probable connexion between this slow fever and the rheumatic phenomena which sometime supervene upon a neglected case of simple continued fever. Excess of muscular waste products were present in the circulation in both cases, and, as Dr. Latham had explained, the development of rheumatism arose from the action of uric acid on the nerve centres, leading in special cases to the secondary development of lactic acid in connexion with muscular metabolism; so he (Dr. Knott) would explain the train of symptoms specially described in this communication to the permanent overthrow of the influence of the thermotaxic nervous mechanism, resulting from the prolonged retention in the circulation of the products of excessive muscular waste. The chemistry of muscular change was considered in detail, and the influence of the nervous mechanisms over animal heat was more fully considered. The paper concluded with some suggestions as to treatment.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

AT the ordinary meeting on Dec. 2nd, Mr. Edward Atkinson, President, in the chair, the following papers were read:—

The Treatment of Laryngeal Phthisis.—Dr. ERNEST JACOB gave a *résumé* of the methods in use among laryngolists for the treatment of tubercular disease of the larynx. He spoke of the difficulty of diagnosis in the earlier stages between a simple catarrhal condition capable of cure and the severer form in which tubercular infiltration and ulceration were found. Cases had been recorded where the laryngeal affection was primary, and the lungs not at all affected; but in most cases the pulmonary lesions could be detected first. He had been in the habit of suspecting tuberculosis in all cases of catarrh which did not yield to treatment. In the early stages mineral astringents, especially iron, were of

use, but in later stages he strongly recommended insufflations of iodoform, iodol, and boracic acid, with or without one-quarter or one-sixth of a grain of morphia, according to circumstances. In the distressing dysphagia, which formed so prominent a symptom in later stages, relief to pain could be given by insufflation of morphia mixed with starch, shortly before a meal, or a spray of cocaine; the latter, however, should be given with an apparatus reaching nearly to the entrance of the larynx, as otherwise most of the drug was wasted on the pharynx. He had not found lactic acid of much use, and thought tracheotomy should be deferred as late as possible. The paper was illustrated by lantern views of the principal lesions of the disease and by microscopic preparations.—Dr. S. C. SMITH had found insufflations of bismuth very useful: it might be used in any quantity without harm.—Dr. BARRS spoke of the difficulty of estimating the amount of pulmonary mischief in phthisis of the lungs when there was laryngitis, due, he thought, to a kind of spurious emphysema induced by the stenosis of the larynx. He mentioned the utility of directing the patient to lie prone when food entered the larynx on swallowing.—Dr. GRIFFITH had seen great improvement in the general symptoms in one case after tracheotomy.—Dr. HERMAN BRONNER thought that great relief was afforded by scarification when the œdema was great, and by scraping the perichondritis. He had seen good results from lactic acid, and tubercular ulcers treated in the clinique of Dr. Krause of Berlin.—Dr. CHADWICK thought the purely catarrhal condition could be cured, but doubted the healing of the ulcerative stage.

Spontaneous Multiple Neuritis.—Dr. BARRS read an account of a case of this condition shown at the meeting on Nov. 4th.—Dr. ALLBUTT thought the "dropped foot" of peripheral neuritis was rather a pointing than a dropping of the toes, and that the case seemed to him to suggest anterior poliomyelitis rather than peripheral lesion; he thought loss of sense was invariably present in the latter.—Dr. MAJOR acknowledged the difficulty in diagnosis. He thought the presence of a faradic reaction very remarkable, and the absence of sensory impairment opposed to the diagnosis of peripheral neuritis.—Dr. GRIFFITHS had seen in two cases of alcoholic paralysis a temporary diminution of sensation.

Relations of Meteorology to Respiratory Death-rates in Huddersfield.—Dr. SPOTTISWOODE CAMERON showed, by some large charts, the Curves of the Mortality from—(1) phthisis and (2) other lung diseases. He compared with these the curves during the same eight years of (3) the mean temperature; (4) minimum temperature; (5) the number of cold weeks; (6) the percentage moisture; (7) the diathermancy of the air, and (8) the rainfall. He concluded that, so far as his figures went, they tended to show that (1) the phthisis curve and that from other lung diseases closely corresponded; that (2) the moisture curve generally corresponded with the disease curves; and that (3) in the single year where the movement was contrary, and where a diminution of moisture coincided with an increased respiratory death-rate, the effect of the former had been overborne by a decrease in the diathermancy of the atmosphere; that (4) the coldness of the winter, as a rule, directly increased the mortality, though less regularly so than did an increase in the atmospheric moisture.

Pathological Specimens.—Mr. M'GILL: Ileo-cæcal Intussusception removed by operation. Dr. BRAITHWAITE: 1. Two specimens of Cancerous Uterus removed by vaginal hysterectony. 2. Cystic Ovary and Tube. Dr. ALLAN: 1. Specimens of Syphilitic Liver from adult and infant. 2. Malignant Disease of Larynx, with papillomatous growth on the cords. 3. Tænia mediocanellata with scolex. 4. Brain in which the left Parietal Hole was largely destroyed by a cyst, causing partial hemiplegia. Dr. CLEWSTON: Softening (? Syphilitic) of Optic Thalamus, causing prolonged coma.

Surgical and Pharmaceutical Appliances.—Mr. MAYO ROBSON showed some wool prepared with "Salufer" (sodium fluosilicate), which he highly recommended for surgical purposes. Mr. BENDELACK HEWETSON showed some "China grass," a fibre extensively used in the district for mixing with silk in manufactures. When impregnated with salicylic acid it was highly absorbent and made a very useful and cheap antiseptic dry dressing. Dr. HELLIES showed a remarkably large specimen of Belladonna Root, grown in Leeds.

PLYMOUTH AND DEVONPORT MEDICAL SOCIETY.

A MEETING of the above Society was held at the Plymouth Public Dispensary, on December 12th, 1887, under the presidency of Dr. W. H. Pearse.

Mr. C. BULTEEL read the report of seven successful cases of Spanton's Cure for Hernia, performed at the Royal Albert Hospital, and compared the operation favourably, both as to simplicity and result, with that of Wood's.

Dr. E. MEERES read a paper on a case of recent medico-legal interest, which involved the differential diagnosis between Tabes Mesenterica and Starvation from Neglect. The salient and comparative features of each were given. The case in point was, at the necropsy, proved clearly to be tabes mesenterica, the hare-brained suggestion of starvation originating from the idle chatter of the gossips of the neighbourhood.

Mr. W. J. SQUARE referred to a case of Tubercular Peritonitis that had been benefited by abdominal section, performed through error in diagnosis.—Dr. BAMPTON related a similar case with a result equally fortunate and happy.

Mr. W. J. SQUARE read a paper on Herpes, believing the eruption to occur frequently in persons of the gouty diathesis.—The PRESIDENT had noticed in India that herpes and ague frequently alternated, the ague disappearing as the herpetic eruption developed.—Mr. C. BULTEEL instanced a case of abortive herpes on the forearm, followed by pain, œdema of the wrist, and other symptoms of peripheral neuritis.

A paper on Alcoholic and Rheumatic Peripheral Neuritis, by Dr. Bampton, was postponed for lack of time.

Mr. J. E. SQUARE showed a case and specimen of Pseudo-glioma.

GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

THE third meeting of the current session was held in the Faculty Hall on the 28th ult., Dr. Wallace, President, in the chair.

Mr. A. R. Gunn, M.B., C.M., Mr. Campbell Syme, L.R.C.P. (Kilmalcolm), and Mr. Wm. Cullen, M.B., C.M. were duly admitted Fellows.

Dr. ROBERT PARK exhibited a Uterine Cast of Dysmenorrhœal Origin, almost entire. The cast was handed to the pathologist, on the bringing up of whose report an account of the case will be given.

Mr. A. STUART NAIRNE then read a paper on two successful cases of Cholecystotomy, in one of which obstruction had been due to gall-stones, and in another to catarrhal products.

Reviews and Notices of Books.

Euthanasia, or Medical Treatment in aid of an Easy Death. By WILLIAM MUNK, M.D., F.S.A., Fellow, and late Senior Censor, of the Royal College of Physicians, &c. Pp. 105. Longmans, Green, and Co. 1887.

THIS is a treatise by a thoughtful and experienced physician. In his preface Dr. Munk tells us that, although much has been written on death and on the physiology of the various modes of dying, little has been set before the profession on the medical management of the dying. This is, indeed, the case. The subject is not discussed in systematic or in clinical treatises on medicine; neither, we believe, do our academic or hospital lecturers find place for it in their regular courses. The truth would appear to be that it is almost ignored. Certainly, in recent times there has been too much tendency to develop the study of pathogeny and that of intimate pathology, while the whole subject of therapeutics, the *ars medendi*, has been too much driven into the background. This is a somewhat sad reflection. The truth must be stated, and it is high time now to recall the practitioners of our art to the fact that their place in

the social system of to-day is conceded to them in virtue of their office as healers of the sick and *ministers at the bedside*. Every other study and medical accomplishment is for them subservient to this end.

It perhaps too often happens that when the shadows of death are plainly falling on any patient the medical attendant retires, and the management of the last hours is left to nurses or immediate relatives. Without doubt, there is now procurable more intelligent ministration at the hands of skilled nurses and the laity generally than was formerly the case. Still, there is reason to believe that the last hours of many patients may be shorn of much weariness and discomfort by a more skilled and efficient management at the hands of the medical attendant. To afford instruction and render available the accumulated skill of many observers in this direction for the practitioner of to-day is the object of the writer of this little book.

Dr. Munk brings to his task a large store of erudition, and culls therefrom the ripest thoughts of men whose duties and habits of mind have best fitted them to impart the knowledge required. He brings his own experience, adds to it the results of calm reflection, and, let us acknowledge with gratitude, tempers it all with the tone of a Christian philosopher. The author expresses his obligation to an elegant academical oration delivered at Leyden, his own *alma mater*, in 1794 on this subject by Professor Paradys, and to the writings of Sir Henry Halford, who, as he avers, was a master in all that concerned the management of the dying. The first chapter relates to "some of the phenomena of dying"; the second discusses "the symptoms and modes of dying," while the third is devoted to "the general and medical management of the dying." The question of actual suffering in the "death agony" is fully discussed, and Dr. Munk agrees with those who regard the majority of deaths as painless. "Some few,' he states, "do really suffer grievously in dying, and expire in great bodily torture," and he gives as examples cases of angina pectoris, cholera, hydrophobia, and tetanus. Guidance is afforded as to conduct in disclosing an unfavourable opinion of a case either to the patient or his friends, and many young practitioners will be grateful to the author for the advice laid down on this point.

We have only space to refer to the very complete directions given as to stimulants and to feeding of the dying, and to commend them fully. Dr. Munk lays much stress on the value of opium in many cases, and urges its employment, with the great end in view of securing its full effects. We are entirely with him as to this. It is simply a neglect of duty, and a fault in our conduct of the last days or hours of many patients, to withhold the inestimable boon afforded by opium in full doses. We have no right to stand aside and withhold our skilled labour in this direction, and we rather suspect such promotion of euthanasia is not uncommonly neglected, or but imperfectly carried out in many cases.

We have not a fault to find with this treatise. It might be more full, but it would then be less readable and attractive. It fulfils its purpose, and we commend it to our readers. Dr. Munk is one of those authors who can write, but seldom do so; and when such a one does commit himself to paper, we confess ourselves always eager to digest the fruits of his mind. The volume is in every way worthy of the attainments and character of the Harveian Librarian of the Royal College of Physicians.

A Text-book of Midwifery. By the late OTTO SPIEGELBERG. Translated from the Second Edition by J. B. HURRY, M.A., M.B. Vol. I. London: The New Sydenham Society.

THE New Sydenham Society has done much good work and conferred many benefits upon the English student and practitioner, but it has not at any time done better than by giving Spiegelberg's great book on Midwifery to the English reader. To the German scholar this book has been known from the time when it was first published, ten years ago, as perhaps the best and greatest work of the time on the subject of which it treats. Spiegelberg died in 1881, at the comparatively early age of fifty-one, while engaged on the second edition of his work; the unfinished portions of it were edited by Dr. Wiener, who had been Spiegelberg's assistant. This, the second edition, is being translated by Dr. Hurry for the New Sydenham Society, and the first volume of it forms the subject of this notice.

The work is one which demands careful study, and is more suited for the student who is somewhat advanced in the art of midwifery than for the beginner; while for the obstetrician it will prove of the greatest value. The whole work is divided into four parts, and each part is subdivided into sections, the matter composing which is arranged according to a scientific rather than a clinical classification. The first part treats of the abdominal cavity, pelvis, and generative organs (parturient canal). In this the author enters into no minute anatomical description of the pelvis and its contents, but deals with them fully in so far as a knowledge of them is necessary for the complete understanding of the processes which take place in conception, pregnancy, and their consequences. In the second part are discussed the physiology and hygiene of pregnancy, parturition, and the puerperal state. Under this head are given the changes which take place in the maternal organs, which are fully described; a description of the embryo and its appendages; the diagnosis and hygiene of pregnancy. The determining cause of labour is discussed: the mechanism of labour and its management, the changes which take place in the maternal system during the puerperium, the management of the puerperal state, and of the new-born child are described. A portion of the third part only appears in this volume. It treats of the pathology and therapeutics of pregnancy, lactation, and the puerperal state. The portion of this division contained in this volume treats of the pathology and therapeutics of pregnancy only. These are subdivided in the following manner—(1) disorders caused by a morbid intensity of physiological phenomena (alterations of blood, anomalies of the circulation and of digestion: urine, skin, neuroses); (2) complications due to intercurrent diseases; (3) anomalies of the sexual organs; (4) diseases of the ovum; (5) hæmorrhage from the uterus. Although the main divisions and arrangements of the book are on lines similar to those usually followed by most writers having any claim to be considered authorities in midwifery, yet the detailed arrangement differs considerably from that adopted by most English writers. This plan has given the author the advantage to be gained from a strictly scientific classification of his matter, but we cannot help feeling that it has given his work not only the appearance but the reality of being less clinical than it might have been. Indeed, it will be felt by most readers that while the work is brimful of obstetric facts, yet it is somewhat deficient in clinical character; that while facts are duly recorded, their relative value is not estimated—the relative importance is not described. The work must always remain, however, a great exposition of our knowledge of midwifery in the latter part of this century.

A few words with regard to the translation by Dr. Hurry. The translation of a German work into idiomatic English is always difficult. It requires not so much a close following of the words and sentences as a clear rendering of the meaning of the original. This often requires a disregard of the construction of the sentences in the German, and demands a division and often a subdivision of them, otherwise the translation will not be readable. This is more especially true of the writings of some German authors than of that of others. It is true of Spiegelberg's work. Dr. Hurry has done his work on the whole well, but he has

in some passages followed too closely the German construction. The insertion of bracketed sentences could have been avoided, and long complicated sentences might have been subdivided. There are, moreover, some errors, and some sentences which are not intelligible without reference to the original. Of this we will give one illustration. On page 335, paragraph 242, we find the following sentence: "Again, when the obstacles to delivery are so great that the latter class (perforation, cephalotripsy, craniotomy, and embryotomy) of operations are inadmissible, or when they are not so consistent with the life of the child, an exit for the latter must be found through the uterine and abdominal parietes—Cæsarean section." The meaning of the first and last parts of the sentence is clear, but what means the middle part? These operations are never consistent with the life of the child; it is always destroyed when they are performed. On turning to the original, we find the English rendering of the German would be: "Again, when the latter class of operations is inadmissible, because of the magnitude of the obstacles to delivery, or by reason of regard for the life of the child, a way must," &c.

One other criticism we have to make. There are three German words used to describe the position and relation of the fœtus in the uterus—namely, *Stellung*, *Haltung*, and *Lage*. *Stellung* expresses the position of the child, meaning the different relations which a certain part of the child—the back for example—can have to certain sides of the uterus, as back to left uterine wall, &c. *Haltung* means the attitude of the child. *Lage* means the relation which the long axis of the child bears to the long axis of the uterus; so that we find *Kopflage*, *Beckenendlage*, and *Querlage*—in English vertex presentation, pelvic presentation, and transverse presentation. In places in this book, instead of presentation the word "lie" is used as the equivalent of *Lage*, so that we find cephalic-lie, pelvic-lie and transverse-lie. Now, the word "lie" has two distinct and definite meanings, neither of which is the equivalent of *Lage*. Presentation, it is true, has two meanings, one of which is the exact equivalent of the word *Lage*, and is frequently so used in the volume before us. We trust that the word "lie" will not be abused for the sake of imitating German phraseology. We heartily sympathise with Dr. Hurry in his difficult and laborious task, and we trust that in the second volume he will not hesitate to sacrifice German construction for the sake of simple English.

On the Operative Surgery of Malignant Disease. By HENRY T. BUTLIN, F.R.C.S., Assistant Surgeon and Demonstrator of Surgery at St. Bartholomew's Hospital. London: J. & A. Churchill. 1887.

IN this work Mr. Butlin has attempted to record the part played by operative interference with malignant disease in every part of the body. He shows its bad side as well as its good, and the statistics he has collected will serve both to restrain and to encourage the operator. The book is not written to establish any new position or to defend any novel procedure, but rather to formulate the results obtained at the present time; and as such it will be welcome to many readers. Mr. Butlin lays stress upon the great importance of removing widely all malignant tumours, and points out that this is far more important than the complete removal of the affected organ. He particularly alludes to this in connexion with scirrhus of the breast, and he is inclined to attach little importance to the excision of every outlying part of the gland provided the diseased part is freely removed. Possibly Mr. Butlin is doing good service in calling attention to this point, for it is easy to plan one's operation to remove a breast, rather than with a view to the wider removal of the part affected. But the practice of removing the entire gland when only an outlying portion is diseased is deeply rooted in the profession, and will not and ought not to be lightly set aside. We are surprised to find Mr. Butlin speaking so favourably of caustics, and this not so much from personal experience as from the writings of Dr. Bougard. Caustics have their place in the practical surgery of malignant disease, but it is a humble one, and the slower course and greater painfulness of their action render them poor substitutes for the knife, while the fact that their very use destroys the tumour for histological purposes renders the results obtained with them of less value than those obtained by the knife.

OUR LIBRARY TABLE.

The Officinal Materia Medica. By FREDERICK J. ROBERTS, M.D. Second Edition. London: H. K. Lewis, 1887.—Whether this book can rightly be termed a second edition or not is rather a moot point; the title has been changed to its present form from "Notes on Materia Medica and Pharmacy," published in 1884; the size of the book has been increased from 380 pages to 543 pages; and the entire aim of it has been very much widened, to meet the requirements of practitioners as well as those of medical and pharmaceutical students. In this edition, while minor alterations of grouping have been made, the chief difference lies in the amplification of the action of medicines. In the former edition the action of nitrite of amyl was dismissed in two lines; in the present it has eight lines devoted to it, and is ennobled with much heavy type. If we are to measure the importance of facts by the type employed, the interval between the first and second editions has transferred this from the *source* and *preparation* to the *action*. Tabular arrangement is still a prominent feature of the book, and will probably be useful to those preparing for examinations. Occasionally it is faulty; e.g., lupulin, although mentioned in the table of Natural Orders, is not to be found in its place among the groups of vegetable drugs. It is also somewhat irritating at times—e.g., when we have to refer to three separate places, many pages apart, to find all the official preparations of conium. Why does Professor Roberts, in his title and throughout the book, use the term "officinal," when one of the features of the recent Pharmacopœia was the employment of "official"? An amusing misprint occurs on p. 439, which deals with the official soaps under a head-line of "Soups."

Accidental Injuries, their Relief and Treatment. How to prevent Accidents becoming more serious. With a Chapter on the various methods of conveying the Sick and Wounded, including the Stretcher Exercises in use by the St. John Ambulance Association. By JAMES CANTLIE. Twelfth Edition; pp. 162. London: Clowes and Sons. 1887.—The fact of eleven editions of this work having been exhausted in three years and a half is sufficient evidence of the estimation in which it has been held by the public and those who are interested in the diffusion of information on the subject of "first aid" to the injured. It appears to us remarkably well suited to the purpose for which it was intended, the instructions being very clearly given, and in language easily understood. The steps to be taken to stop bleeding, the mode of applying the various kinds of bandages, and the nature and amount of assistance to be given in cases of fracture until the services of a surgeon can be obtained, are stated very fully, and appear to be judicious. There is one remark of Mr. Cantlie which is well deserving of being remembered, and especially by a large class of those who have gone through a course of ambulance instruction: "It is not knowledge, but ignorance, that makes people doctor themselves, and the most ignorant are, in this as in other things, the most ready to take upon themselves the management of even human life." Prompt aid in many cases of accident is invaluable, but it should never be forgotten that it does not supersede the necessity for skilled treatment

afterwards, and the sooner that is obtained the better for the unfortunate sufferer. The illustrations are good, and the book has the advantage of a copious index.

The Journal of Physiology. Edited by Professor MICHAEL FOSTER. Vol. VIII. No. 6. Cambridge Scientific Instrument Company's Works, Cambridge. — This part contains the following memoirs:—1. The Effect of Pure Alcohol on the Reaction Time, with a description of a new Chronograph, by Joseph W. Warren, M.D., of Harvard University. 2. The Tympanic Kymograph, a New Pulse and Blood-pressure Registering Apparatus, with a plate, by H. Sewall. 3. On certain points connected with the Circulation of the Blood, by J. R. Green; and by the same author—4. A Note on the Action of Sodium Chloride in Dissolving Fibrin. 5. The Secretion of the Gall-bladder, by De Burgh, Birch, and Spong. 6. On the Hæmato-porphyrin of Solecurtus Strigillatus, by C. A. McMunn. 7. The Differential Action of Brucine and of Strychnine, by Thomas J. Mays. 8. On the Action of Muscarin upon the Heart, and on the Electrical Changes in the Non-beating Cardiac Muscle, brought about by Stimulation of the Inhibitory and Augmentor Nerves, by W. H. Gaskell.

Foods: their Composition and Analysis. By A. W. BLYTH. Third Edition. London: Charles Griffin and Co. 1888.—There can be no question of the success of this work, which is addressed chiefly to analytical chemists, but contains much that will prove of value and interest to medical practitioners. This edition contains an account of the more recent advances in the chemistry and analysis of food; the descriptions of the microscopy of vegetable tissues have been specially revised. The importance of studying foods is great to a practitioner for two chief purposes: he is enabled to treat his patients with greater success on account of the enlightened knowledge which he possesses of the value of the different kinds of food stuffs; but knowledge of a similar kind enables him not only to trace out many obscure causes of disease in the adulteration of food, but by avoiding foods known to contain foreign matters he is rendered still more efficient as a healer of disease. We cannot do more in this notice of the third edition than to commend the book strongly to the practitioner as a work of an eminently practical nature, and calculated to prove of the best possible value to the student of foods and their adulterations.

Light Diet. By Dr. H. W. SEAGER. London: Simpkin, Marshall, and Co.—The author states in the preface that this little book "is intended not so much for the guidance of the medical practitioner as for the use and information of the lay patient." Invalids and their friends will hail with pleasure this most useful little manual, which contains not only many well-selected recipes, but also many hints on the choice of suitable food and the manner and times of taking it. In the chapter devoted to milk and its preparations, Dr. Seager touches on the important subject of milk, and shows how its monotony may be varied by the addition of potash, cinnamon, Apollinaris, lime, soda, and other waters; and also by sometimes boiling or warming it. Milk under these circumstances should be taken in spoonfuls and not gulped down. Many patients "turn" against their food because of its injudicious preparation and administration. Dr. Seager gives many valuable hints with regard to these matters. It is not always safe to trust to the guidance of an ordinary cookery-book in cases of illness, as many of the recipes are too highly spiced or too rich for weak digestions. Those contained in this manual are selected with much care and with a scientific knowledge of cause and effect. It is a book which may safely be recommended to patients.

Notes on Dental Surgery. By J. SMITH, M.D., LL.D., F.R.C.S.E. — These notes are designed for students of medicine and general practitioners, and a more able statement of the facts and generally accepted rules of dental surgery it would be difficult to give in the same compass. Not only are the principles necessary for the successful extraction of teeth well and clearly stated, but the remarks on the treatment of irregularities and the simpler methods of filling are quite to the point. The chapter devoted to anæsthetics includes a few words on the latest local one—cocaine. Having in view the class of readers for which the work is written, the anatomy of the jaws, as given, ought not to have been so elementary, or it ought to have been omitted altogether.

Bench-book for Test-tube Work in Chemistry. By H. T. LILLEY, M.A. London: Hamilton, Adams, and Co.—Doubtless this pamphlet of eleven pages will be useful to its author as a teacher, for every teacher finds it advantageous to have his own synopsis; but we cannot think it suitable for general use.

MAGAZINES.

Good Words. London: Isbister and Co.—The opening number of this excellent magazine is replete with matter of genuine interest. Amongst the articles may be mentioned an entertaining paper on Thackeray, by Andrew Lang; Part I. of a narrative by Captain A. H. Markham, R.N., entitled "Through Hudson Strait and Bay"; the first instalment of an instructive sketch "On the Culture of the Senses," by Jean Ingelow; another by Professor H. Drummond, headed "Mimicry in Tropical Africa." These, with minor papers, poetry, and fiction, make up a very superior number.

The Sunday Magazine (Isbister) for January is enriched by contributions of high-class writers, such as Dr. George Macdonald, Archdeacon Farrar, the Rev. J. G. Wood, the Rev. G. S. Reaney, Mr. Farjeon, and others, whose names are a guarantee of the excellent quality of the contents of a serial which must be regarded as occupying a position in the front rank of religious publications. We have on a former occasion referred to the high merit of the illustrations both of this and the magazine noticed above, and the praise then bestowed may be applied without modification to the engravings which embellish the current numbers.

The Leisure Hour (Religious Tract Society) for January is quite up to the high standard which this publication has maintained heretofore. It appears in a new dress, which to some tastes will appear an improvement. Amongst its contents is a short Indian sketch by Surgeon-Major Alcock, entitled "The Caged Chieftain of Ladak," with an excellent illustration; also a paper by another *confrère*, Dr. A. T. Schofield. There are articles ranging from grave to gay, from lively to severe, instruction and humour judiciously intermingled, affording altogether a fair intellectual repast.

The Sunday at Home, the *Boys' Own Paper*, and the *Girls' Own Paper* (Religious Tract Society) are serials which are warmly to be commended as supplying to the classes of readers catered for a literature at once instructive and wholesome. The success evidently enjoyed by these publications must be a source of gratification to all right-thinking people.

Scribner's Magazine (London: F. Warne and Co.) has established a reputation, as a worthy competitor with its English rivals, which cannot be ignored. The articles in the first number for the New Year are of fully average merit, though one or two of them can scarcely be called light reading. The aim of the editor, doubtless, is to combine solid information with literature of a kind suitable for mental relaxation; and it must be confessed that this object is successfully achieved. In the matter of illustrations, too, this magazine will hold its own. There is a finish and a brightness about them which it would not be easy to surpass, and which, or at least the latter quality, may perhaps to some extent be attributable to climatic conditions in the States more favourable to typographical processes than those which obtain in the more humid atmosphere of our own country. The magazine is undoubtedly worthy of success.

Analytical Records.

DAHL'S DYSPEPSIA CAKES.

(DYSPEPSIA CAKE MANUFACTURING COMPANY, SCHERMERBOUR-STREET, BROOKLYN, NEW YORK.)

THESE cakes, recommended for constipation, dyspepsia, colic, &c., contain much bran and some starch, but no sugar. They act, of course, as mechanical stimulants to the bowels, and will doubtless in suitable cases be found valuable.

SACCHARIN ELIXIR (FLUID SUGARLESS SWEETENER).

(ALLEN & HANBURYS, PLOUGH COURT, LOMBARD-STREET.)

The important sweetening agent saccharin, which is the latest triumph of the coal-tar industry, is receiving many applications. It is a weak acid, sparingly soluble in water, but soluble with effervescence in alkaline carbonates. The solution now under notice was alkaline. It effervesced with dilute sulphuric acid, and yielded a precipitate which, extracted with ether, was found to have the properties, and above all the amazing sweetness, of pure saccharin. Twenty drops of the elixir will sweeten a breakfast cup of coffee, and minute quantities may be used for all the purposes to which sugar is applied, including, it is said, the preservation of fruits. The importance of the preparation in cases of diabetes will be evident to all physicians.

SAL SACCHARINI (GRANULATED SUGARLESS SWEETENER).

(ALLEN & HANBURYS, PLOUGH COURT, LOMBARD-STREET.)

This preparation appears to be identical with the last, except that it is solid. It was found to be freely soluble in water, the solution being alkaline, and yielding saccharin readily to dilute sulphuric acid and ether. Of course it is more portable than the elixir.

COMPRESSED SACCHARINE TABULI.

(ALLEN & HANBURYS, PLOUGH-COURT, LOMBARD-STREET.)

This is another and very convenient form of the last preparation. Each tablet contains half a grain of saccharin, which is the quantity which to most persons is sufficient for a cup of tea or coffee.

SODEN MINERAL PASTILES: PREPARED FROM SALTS GAINED FROM THE SODEN MEDICINAL SPRINGS.

(THE SODEN MINERAL PRODUCE COMPANY.)

The analysis of these pastiles agreed with the well-known composition of the Soden water. The water was alkaline, and we found a large quantity of alkaline, chloride, and some carbonate, with a notable trace of iron, but no calcium or magnesium, and scarcely any sulphate. It is evident that the preparation is correctly described, and those who have found benefit from the Soden waters can now continue their treatment in England.

KEF: FERMENTED MILK.

(SPRING & CO., BLENHEIM-ROAD, ST. JOHN'S WOOD.)

Kef is to cow's milk exactly what the celebrated koumiss is to mare's milk. It derives its origin from Russia, and it has undoubtedly great value in many cases of imperfect nutrition, acting partly as medicine and partly as food. As in the case of koumiss, the therapeutic action varies remarkably as the fermentation progresses, so that it is necessary to define exactly the species of kef which is required. It has been interesting to us to submit three typical specimens to analysis. We have treated them exactly as sour milks are treated in the method devised by Dr. Bell of Somerset House, which, although not perfect, gives a fair idea of the character of the milk. The acid is, however, estimated directly, and is taken as lactic acid. Its progressive increase is remarkable.

Kef No. 1. For obstinate Constipation.

	Per cent.
Solids not fat	8·80
Fat	1·50
Ash	·59
Acid, reckoned as lactic	·981

Kef No. 2. For general debility, indigestion, sickness, and faulty assimilation.

	Per cent.
Solids not fat	8·32
Fat	2·42
Ash	·55
Acid	1·143

Kef No. 3. For Diarrhœa.

	Per cent.
Solids not fat	8·50
Fat	1·20
Ash	·44
Acid	1·301

EUCALINUM ANTISEPTIC TOILET VINEGAR.

(ROCKE, TOMPSITT, & CO., MELBOURNE AND LONDON.)

This is evidently a preparation of the fragrant eucalyptus oil to which such valuable properties have been assigned. When the acid is neutralised with soda the essential oil is easily liberated. As a refreshing toilet preparation the vinegar may safely be commended, but we are unable to assign to it any great value as an antiseptic.

FISH SAUSAGE ("ICHTHYS").

(W. P. ENGLISH, HULL.)

This article of fish diet is, as far as we know, a novelty, and it certainly seems a valuable one. The sausages are made from fresh cod and other white fish much as ordinary sausages are, but with a moderate addition of fat, which from the dietetic point of view is an evident improvement. They are excellent in appearance and flavour.

New Inventions.

AXIS TRACTION MIDWIFERY FORCEPS.

AFTER much consideration I thought it might be possible so to modify the long midwifery forceps that it could be used according to the old method, and yet that at a moment's notice it could be altered so as to admit of its being also used as an instrument similar in its action to Aveling's axis traction forceps. The engraving depicts a forceps which in almost every respect resembles Barnes's long forceps with the German shoulder, and by withdrawing a spring catch in each the handles can be bent in a line corresponding with the perineal curve, and be firmly fixed, thus in a second converting it into an excellent axis traction instrument. As in Aveling's forceps, the perineal curve is produced in the handles, which serve for traction. Finally, the handles can be fixed at right angles, so as to enable the instrument to be stowed away in an ordinary coat pocket. During the last six months I have repeatedly used the forceps, and found it to fulfil the objects for which it was designed. The engraving shows the forceps as in ordinary use, and the dotted lines the other positions in which it can be locked. Messrs. Arnold and Sons, West Smithfield, are the manufacturers, and I wish to express my indebtedness to them for the care with which they have carried out my directions.

NICHOLAS GRATTAN, F.R.C.S.E.,
Senior Surg. Co. and City of Cork Hosp. for Women and Children.

afterwards, and the sooner that is obtained the better for the unfortunate sufferer. The illustrations are good, and the book has the advantage of a copious index.

The Journal of Physiology. Edited by Professor MICHAEL FOSTER. Vol. VIII. No. 6. Cambridge Scientific Instrument Company's Works, Cambridge. — This part contains the following memoirs:—1. The Effect of Pure Alcohol on the Reaction Time, with a description of a new Chronograph, by Joseph W. Warren, M.D., of Harvard University. 2. The Tympanic Kymograph, a New Pulse and Blood-pressure Registering Apparatus, with a plate, by H. Sewall. 3. On certain points connected with the Circulation of the Blood, by J. R. Green; and by the same author—4. A Note on the Action of Sodium Chloride in Dissolving Fibrin. 5. The Secretion of the Gall-bladder, by De Burgh, Birch, and Spong. 6. On the Hæmato-porphyrin of Solecurtus Strigillatus, by C. A. McMunn. 7. The Differential Action of Brucine and of Strychnine, by Thomas J. Mays. 8. On the Action of Muscarin upon the Heart, and on the Electrical Changes in the Non-beating Cardiac Muscle, brought about by Stimulation of the Inhibitory and Augmentor Nerves, by W. H. Gaskell.

Foods: their Composition and Analysis. By A. W. BLYTH. Third Edition. London: Charles Griffin and Co. 1888.—There can be no question of the success of this work, which is addressed chiefly to analytical chemists, but contains much that will prove of value and interest to medical practitioners. This edition contains an account of the more recent advances in the chemistry and analysis of food; the descriptions of the microscopy of vegetable tissues have been specially revised. The importance of studying foods is great to a practitioner for two chief purposes: he is enabled to treat his patients with greater success on account of the enlightened knowledge which he possesses of the value of the different kinds of food stuffs; but knowledge of a similar kind enables him not only to trace out many obscure causes of disease in the adulteration of food, but by avoiding foods known to contain foreign matters he is rendered still more efficient as a healer of disease. We cannot do more in this notice of the third edition than to commend the book strongly to the practitioner as a work of an eminently practical nature, and calculated to prove of the best possible value to the student of foods and their adulterations.

Light Diet. By Dr. H. W. SEAGER. London: Simpkin, Marshall, and Co.—The author states in the preface that this little book "is intended not so much for the guidance of the medical practitioner as for the use and information of the lay patient." Invalids and their friends will hail with pleasure this most useful little manual, which contains not only many well-selected recipes, but also many hints on the choice of suitable food and the manner and times of taking it. In the chapter devoted to milk and its preparations, Dr. Seager touches on the important subject of milk, and shows how its monotony may be varied by the addition of potash, cinnamon, Apollinaris, lime, soda, and other waters; and also by sometimes boiling or warming it. Milk under these circumstances should be taken in spoonfuls and not gulped down. Many patients "turn" against their food because of its injudicious preparation and administration. Dr. Seager gives many valuable hints with regard to these matters. It is not always safe to trust to the guidance of an ordinary cookery-book in cases of illness, as many of the recipes are too highly spiced or too rich for weak digestions. Those contained in this manual are selected with much care and with a scientific knowledge of cause and effect. It is a book which may safely be recommended to patients.

Notes on Dental Surgery. By J. SMITH, M.D., LL.D., F.R.C.S.E. — These notes are designed for students of medicine and general practitioners, and a more able statement of the facts and generally accepted rules of dental surgery it would be difficult to give in the same compass. Not only are the principles necessary for the successful extraction of teeth well and clearly stated, but the remarks on the treatment of irregularities and the simpler methods of filling are quite to the point. The chapter devoted to anæsthetics includes a few words on the latest local one—cocaine. Having in view the class of readers for which the work is written, the anatomy of the jaws, as given, ought not to have been so elementary, or it ought to have been omitted altogether.

Bench-book for Test-tube Work in Chemistry. By H. T. LILLEY, M.A. London: Hamilton, Adams, and Co.—Doubtless this pamphlet of eleven pages will be useful to its author as a teacher, for every teacher finds it advantageous to have his own synopsis; but we cannot think it suitable for general use.

MAGAZINES.

Good Words. London: Isbister and Co.—The opening number of this excellent magazine is replete with matter of genuine interest. Amongst the articles may be mentioned an entertaining paper on Thackeray, by Andrew Lang; Part I. of a narrative by Captain A. H. Markham, R.N., entitled "Through Hudson Strait and Bay"; the first instalment of an instructive sketch "On the Culture of the Senses," by Jean Ingelow; another by Professor H. Drummond, headed "Mimicry in Tropical Africa." These, with minor papers, poetry, and fiction, make up a very superior number.

The Sunday Magazine (Isbister) for January is enriched by contributions of high-class writers, such as Dr. George Macdonald, Archdeacon Farrar, the Rev. J. G. Wood, the Rev. G. S. Reaney, Mr. Farjeon, and others, whose names are a guarantee of the excellent quality of the contents of a serial which must be regarded as occupying a position in the front rank of religious publications. We have on a former occasion referred to the high merit of the illustrations both of this and the magazine noticed above, and the praise then bestowed may be applied without modification to the engravings which embellish the current numbers.

The Leisure Hour (Religious Tract Society) for January is quite up to the high standard which this publication has maintained heretofore. It appears in a new dress, which to some tastes will appear an improvement. Amongst its contents is a short Indian sketch by Surgeon-Major Alcock, entitled "The Caged Chieftain of Ladak," with an excellent illustration; also a paper by another *confrère*, Dr. A. T. Schofield. There are articles ranging from grave to gay, from lively to severe, instruction and humour judiciously intermingled, affording altogether a fair intellectual repast.

The Sunday at Home, the *Boys' Own Paper*, and the *Girls' Own Paper* (Religious Tract Society) are serials which are warmly to be commended as supplying to the classes of readers catered for a literature at once instructive and wholesome. The success evidently enjoyed by these publications must be a source of gratification to all right-thinking people.

Scribner's Magazine (London: F. Warne and Co.) has established a reputation, as a worthy competitor with its English rivals, which cannot be ignored. The articles in the first number for the New Year are of fully average merit, though one or two of them can scarcely be called light reading. The aim of the editor, doubtless, is to combine solid information with literature of a kind suitable for mental relaxation; and it must be confessed that this object is successfully achieved. In the matter of illustrations, too, this magazine will hold its own. There is a finish and a brightness about them which it would not be easy to surpass, and which, or at least the latter quality, may perhaps to some extent be attributable to climatic conditions in the States more favourable to typographical processes than those which obtain in the more humid atmosphere of our own country. The magazine is undoubtedly worthy of success.

Analytical Records.

DAHL'S DYSPEPSIA CAKES.

(DYSPEPSIA CAKE MANUFACTURING COMPANY, SCHERMERBOUR-STREET, BROOKLYN, NEW YORK.)

THESE cakes, recommended for constipation, dyspepsia, colic, &c., contain much bran and some starch, but no sugar. They act, of course, as mechanical stimulants to the bowels, and will doubtless in suitable cases be found valuable.

SACCHARIN ELIXIR (FLUID SUGARLESS SWEETENER).

(ALLEN & HANBURYS, PLOUGH COURT, LOMBARD-STREET.)

The important sweetening agent saccharin, which is the latest triumph of the coal-tar industry, is receiving many applications. It is a weak acid, sparingly soluble in water, but soluble with effervescence in alkaline carbonates. The solution now under notice was alkaline. It effervesced with dilute sulphuric acid, and yielded a precipitate which, extracted with ether, was found to have the properties, and above all the amazing sweetness, of pure saccharin. Twenty drops of the elixir will sweeten a breakfast cup of coffee, and minute quantities may be used for all the purposes to which sugar is applied, including, it is said, the preservation of fruits. The importance of the preparation in cases of diabetes will be evident to all physicians.

SAL SACCHARINI (GRANULATED SUGARLESS SWEETENER).

(ALLEN & HANBURYS, PLOUGH COURT, LOMBARD-STREET.)

This preparation appears to be identical with the last, except that it is solid. It was found to be freely soluble in water, the solution being alkaline, and yielding saccharin readily to dilute sulphuric acid and ether. Of course it is more portable than the elixir.

COMPRESSED SACCHARINE TABULI.

(ALLEN & HANBURYS, PLOUGH-COURT, LOMBARD-STREET.)

This is another and very convenient form of the last preparation. Each tablet contains half a grain of saccharin, which is the quantity which to most persons is sufficient for a cup of tea or coffee.

SODEN MINERAL PASTILES: PREPARED FROM SALTS GAINED FROM THE SODEN MEDICINAL SPRINGS.

(THE SODEN MINERAL PRODUCE COMPANY.)

The analysis of these pastiles agreed with the well-known composition of the Soden water. The water was alkaline, and we found a large quantity of alkaline, chloride, and some carbonate, with a notable trace of iron, but no calcium or magnesium, and scarcely any sulphate. It is evident that the preparation is correctly described, and those who have found benefit from the Soden waters can now continue their treatment in England.

KEF: FERMENTED MILK.

(SPRING & CO., BLENHEIM-ROAD, ST. JOHN'S WOOD.)

Kef is to cow's milk exactly what the celebrated koumiss is to mare's milk. It derives its origin from Russia, and it has undoubtedly great value in many cases of imperfect nutrition, acting partly as medicine and partly as food. As in the case of koumiss, the therapeutic action varies remarkably as the fermentation progresses, so that it is necessary to define exactly the species of kef which is required. It has been interesting to us to submit three typical specimens to analysis. We have treated them exactly as sour milks are treated in the method devised by Dr. Bell of Somerset House, which, although not perfect, gives a fair idea of the character of the milk. The acid is, however, estimated directly, and is taken as lactic acid. Its progressive increase is remarkable.

Kef No. 1. For obstinate Constipation.

	Per cent.
Solids not fat	8·80
Fat	1·50
Ash	·59
Acid, reckoned as lactic	·981

Kef No. 2. For general debility, indigestion, sickness, and faulty assimilation.

	Per cent.
Solids not fat	8·32
Fat	2·42
Ash	·55
Acid	1·143

Kef No. 3. For Diarrhœa.

	Per cent.
Solids not fat	8·50
Fat	1·20
Ash	·44
Acid	1·301

EUCALINUM ANTISEPTIC TOILET VINEGAR.

(ROCKE, TOMPSITT, & CO., MELBOURNE AND LONDON.)

This is evidently a preparation of the fragrant eucalyptus oil to which such valuable properties have been assigned. When the acid is neutralised with soda the essential oil is easily liberated. As a refreshing toilet preparation the vinegar may safely be commended, but we are unable to assign to it any great value as an antiseptic.

FISH SAUSAGE ("ICHTHYS").

(W. P. ENGLISH, HULL.)

This article of fish diet is, as far as we know, a novelty, and it certainly seems a valuable one. The sausages are made from fresh cod and other white fish much as ordinary sausages are, but with a moderate addition of fat, which from the dietetic point of view is an evident improvement. They are excellent in appearance and flavour.

New Inventions.

AXIS TRACTION MIDWIFERY FORCEPS.

AFTER much consideration I thought it might be possible so to modify the long midwifery forceps that it could be used according to the old method, and yet that at a moment's notice it could be altered so as to admit of its being also used as an instrument similar in its action to Aveling's axis traction forceps. The engraving depicts a forceps which in almost every respect resembles Barnes's long forceps with the German shoulder, and by withdrawing a spring catch in each the handles can be bent in a line corresponding with the perineal curve, and be firmly fixed, thus in a second converting it into an excellent axis traction instrument. As in Aveling's forceps, the perineal curve is produced in the handles, which serve for traction. Finally, the handles can be fixed at right angles, so as to enable the instrument to be stowed away in an ordinary coat pocket. During the last six months I have repeatedly used the forceps, and found it to fulfil the objects for which it was designed. The engraving shows the forceps as in ordinary use, and the dotted lines the other positions in which it can be locked. Messrs. Arnold and Sons, West Smithfield, are the manufacturers, and I wish to express my indebtedness to them for the care with which they have carried out my directions.

NICHOLAS GRATTAN, F.R.C.S.E.,
Senior Surg. Co. and City of Cork Hosp. for Women and Children.

THE LANCET.

LONDON: SATURDAY, JANUARY 7, 1888.

IT is not quite true that "What happens is the unexpected." Our most ardent anticipations are so fraught with fear that it cannot be affirmed that we *expect* them to be realised. It is fortunate that it is so, for otherwise the adventurous enterprise of anticipation on the threshold of a new year would be too lugubrious a task to be willingly undertaken. As it is, we are rather formulating wishes than expressing well-grounded hopes, when we try to indicate what *ought*, in our judgment, to be the characteristics and achievements of the year on which we are entering. Of the several measures and reforms we ventured to forecast as contingent possibilities of the year 1887, not one has been accomplished. No measure for the reconstruction and amendment of the laws relating to lunatics has passed the Legislature; no formulated scheme of any sort has found embodiment in an Act for the development of local government; the interests of health have not been sensibly advanced or consolidated by legislation; and the phrase *Sanitas sanitatum, omnia est sanitas*, so far as legislation is concerned, is as much an empty and meaningless jingle of words as it was when first it fell from the lips of a departed statesman. Medical reform is still something hanging in the air big with promise, but nothing more tangible; and for practical purposes a London Teaching University as distinguished from the University of London is not more available for the needs of contemporary students than a castle in Spain. In respect to one and all of the good things we anticipated on Jan. 1st, 1887, our position is strictly conformable to the spirit of the aphorism, "Man never is, but always *to be*, blessed." Patience is the most useful, if not also the most excellent, of virtues; and if perfect contentment with things as they are be impossible, that is—so far, at least, as peace of mind is concerned—a matter of regret rather than a subject of complacency. It is doubtless true that if everyone were satisfied there would be no progress; but, however admirable and necessary it may be on general grounds to strive and press forward, it is difficult to avoid a feeling of weariness while year after year we find ourselves compelled to struggle over precisely the same ground and surmount the same obstacles, with no better result than to be swept back again at the very moment when it seems likely that an advanced position may be gained. It is useless to protest against this waste of time and this spoiling of tempers. Both will go on, called by the opprobrious term "obstruction" or something else, to the end of the chapter. It is the logical outcome of our much-approved system of government by party; and whatever school or clique of politicians may chance to be in the ascendancy the result is tolerably constant—namely, that the real needs of the people, the matters that directly relate to the public health, in mind and body, and the social and commercial stability and prosperity of the nation, are neglected. Only when there happens to be imperative need for a momentary pause in the main business of sensational law making and mending is any measure of genuine domestic interest deemed worthy of attention, and it is only in such fleeting moments that the promoters of practical measures can hope to make any way. It would be idle to indicate a programme for a year which is predoomed to be wasted unless some miracle of adroitness should be wrought to rescue it from the toils of those who deem that time and strength are only made to be squandered. The measures above mentioned—namely, reform of the lunacy laws, and the development of local government with a view to the improvement of public health, are urgently needed by the community at large; and indirectly, if not directly and obviously, the health and prosperity of the population are deeply interested in such a development of the practical side of medical reform as shall ensure the advancement of professional education. Those who perceive these facts will do well to bear in mind that, although it is not true that only the unexpected happens, the shrewdest and soundest policy is to have everything so prepared that if at any moment there should occur a temporary lull in party conflict, the fullest advantage may be *instantly* taken of the opportunity, meagre though it be, to press the claims of business which relates to matters so humble and ordinary as the life and health of the people. To this end we ought at least to be agreed among ourselves as to what it is we demand in the public interest; and the sooner such unanimity, or at least agreement, as will prevent the ruin of reasonable projects by opposition raised on petty or personal grounds is achieved, the better will it be for ourselves and for those on whose behalf we profess to be unselfishly contending.

Meanwhile we may venture, in connexion with this forecast of the year on which we have entered, to make a few remarks on what the immediate future is likely to bring forth in certain departments of medical work.

So far as Medical Education is concerned, the most pressing question for the year 1888 is that of Degrees for London Medical Students on the same terms as they are obtained at the other centres of medical education, more particularly at the Scotch and provincial universities. This will quickly receive at least a partial answer, for the Privy Council, which has to consider the various memorials now submitted to it, cannot leave the question as it now stands. Either a simple degree-giving power must be conferred on the Royal Colleges in London, or an attempt must be made at establishing a new Teaching University in London, for the purpose of promoting higher academic education as well as of merely granting degrees. One or other scheme must be determined on, so that the present condition of injustice towards the largest centre of clinical teaching in the world may be speedily removed. It is impossible for those outside the profession to estimate fairly the whole bearing of the question, and for this reason, and to ensure that it has been fully considered, we again most advisedly urge the appointment of a Royal Commission, on whose report legislation might be asked for with more confidence in its being satisfactory than on the numerous and one-sided petitions now before the Privy Council.

As to the Medical Council, this body has formulated its own forecast, and will be judged very much by the success with

which it realises it. It proposes to adjust its finances; to improve its discussions and its despatch of business by delegating the preparation of important questions to Standing Committees; and to leave to the enlarged Executive Committee large powers of action and administration. The most novel feature in its data for action will be the reports of the new inspectors on all the Final examinations of the kingdom to be presented at the next meeting. The profession will await with interest the report of the Education Committee, and will especially be concerned with the efficiency of proposals or increasing the Practical element in Medical Education. It is proposed to have not more than two meetings of the Council—one in May, and, if necessary, another in November.

The duties of the Council of the Royal College of Surgeons for the New Year commenced on Thursday last (*vide* p. 48) by a consideration of the report of the President and Vice-Presidents on the statement relating to the Supplemental Charter prepared by the Association of Fellows, which had been referred to the Council from the Lords of the Privy Council for comment. Another document was forwarded to them more recently, but no request was made for remarks on it. We cannot at present publish the reply which will be returned to the Privy Council, as it is subject to confirmation at the next meeting of the Council of the College, but we do not anticipate that the answer of the Council will be other than that it has already given the subject its most serious attention, and does not see any reason for changing the terms of the proposed Charter. Should this be so, the present year will be a busy one, for the Fellows and Members' Associations will strenuously oppose the grant of the new Charter in its unaltered form, and will obtain a full hearing. The new buildings at the College are approaching completion, and will be occupied during the year; progress is also being made with regard to the buildings to be erected on the vacant ground in connexion with the Examination Hall. Will the President be re-elected after the manner of the sister College? and what will be his report to the annual meeting of Fellows and Members in November? are questions which only time can answer.

For further light in Therapeutics we must look to experimental research. The experimental work must take place in several directions, for the chemist must prepare active principles and the physiological pharmacologist must try their influences on the various functions in health, and ascertain the degree of those influences, before the clinician may make trial of them on the sufferer from disease. We know of remedies that affect the various functions of the various systems, but many more are yet required, and particularly are drugs wanted which have an action only on sensory nerves. True, many valuable drugs of the kind exist, and prove most useful, but with most of them it may be said that their action is too widespread. This is not our need. We desire to possess a drug or active principle for every mechanism or function of the body, to excite or depress it alone without affecting other functions. And such an achievement is worth the striving for in default of the grander object which physiological chemistry alone can reach. If we would understand the precise arrangement of the atoms in a molecule of living stuff, we should still require to know how so to exercise force or stratagem as to cause diseased molecules to return to their normal mode of structure and function. And this is the work which our pharmacologists are attempting for us—with varing success it is true, but still with progress in the right direction.

During the year we may, perhaps, hope to see some changes in our Sanitary administration. The Government have definitely promised to bring in a County Government Bill, and this will, we hope, be the beginning of permanency of office for health officers and others engaged in the important duty of preventing disease. The first step for this purpose is to define the areas of local jurisdiction, and to constitute authorities who shall be empowered to carry the law into effect. We may anticipate, however, that there will be vested in these bodies considerable legislative power—that is to say, that they will be authorised to make, repeal, and alter bye-laws on the many subjects that will come under their control. One of their powers will undoubtedly be the making of bye-laws for procuring the notification of infectious diseases, and we may safely affirm that a Bill for this purpose will, during the coming session, engage the attention of Parliament. Again, we may be assured that the compulsory enforcement of vaccination will, in one form or another, be brought before the House. The difficulties of carrying out the law in some districts is not unlikely to be made the occasion of an inquiry. Such investigation wil not be feared by those who desire to remove small-pox from our causes of mortality, but it may be equally assumed that no amount of evidence which might thus be brought together will convince some sections of the community.

In the course of the present year the post of Director-General of the Medical Department of the Navy will become vacant by the retirement of Sir J. W. REID, K.C.B., on the completion of his period of service. In February an examination of candidates to fill eight vacancies will be held as usual at Burlington-gardens. At the same time there will also be an examination for fourteen appointments in the Indian Medical Service. We trust that the year will not be allowed to pass without steps being taken to remedy the injustice done to brigade surgeons in India by the withholding of the pay and allowances to which their rank in justice entitles them. In the Army Medical Department the following retirements will take place under the operation of the age clause of the Warrant:—Surgeons-General JOHN IRVINE and H. B. HASSARD, and, unless promoted before attaining the age of fifty-five, Brigade-Surgeons T. RUDD, F. H. M. SYMONS, W. B. RAMSBOTHAM, J. MACKENZIE, and W. R. LANE, and Surgeons-Major AUG. MORPHEW, and GEO. PERRY. There will be no examination for commissions in February, owing to reduction of the staff in Egypt; but it seems probable that there may be vacancies to fill at the period of the August examinations. We have heard a rumour of an intention on the part of the India Office to discontinue sending their surgeons on probation to the Medical School at Netley. We sincerely trust they will not take such a retrograde step. The school was one of the great benefits obtained by Lord HERBERT OF LEA in the interests of the soldier, and it has undoubtedly contributed very largely to the improved sanitary condition of the army in India as well as at home. It would, indeed, be a misfortune to the army if, on the ground of a mistaken economy, so useful an institution were to be discontinued, and the young medical

officers thus deprived of the practical instruction in an important branch of their duties.

THE LANCET has during the last year again so far made good its position as the one independent organ of the medical profession for the United Kingdom, the colonies, and the whole empire, that it is needless to do more than say that what it is and has been it will continue to be, and that no effort will be spared to develop and extend its usefulness. The subscription to THE LANCET is larger by many thousands than that enjoyed by any other medical journal; there is also this significant condition to be credited to its account, that notwithstanding its price is higher than that of any other medical journal, every copy is directly purchased, which is a very different matter from the mere distribution of a journal as the organ of an association. It is hardly possible that these *facts* can be unknown to any member of the profession. Those who take in THE LANCET do so voluntarily and solely because they wish to read it, and, so far as we can ascertain, THE LANCET is read by five-sixths of the entire profession at home and abroad. It is worth while to say this once for all, and in terms plainer than we have hitherto said it. It is distasteful to have to say as much as this about the journal, but we have felt compelled to do so. This done, the subject may be dropped. The scheme and aims of THE LANCET need not be recapitulated. They are before our readers. The several departments have been revised and to some extent reorganised, and the year 1888 will, we trust, bear witness to the energy with which they are conducted. The point on which we would most strikingly insist is that which gives this journal its distinctive character—the *raison d'être* of THE LANCET, the embodiment of the idea of its founder—namely, that it is the organ of the *profession* as distinguished from all associations, societies, bodies, parties, or cliques. The views we endeavour to formulate and express are those which we believe to be the views obvious and inevitable from the general professional standpoint; and we have no leaning or desire to adopt or promote views other than these, in regard to any subject or enterprise of professional or public concern or interest. To aid us in our work as *representative of the mind of the profession*, we need to be in the closest sympathy with those for whom we presume to speak, and we hope and believe that the need of communicating with us directly on any and every question of moment relating to the science of healing, or the opinions and needs of its practitioners, is and will always be, present to the minds of our readers. If there be one part of the journal which we especially wish to encourage, extensive though it be, it is that of our correspondence with members of the profession in all parts of the known world. We would that THE LANCET of 1888 should, in even greater degree than in years past, be the mirror of professional opinion, both on the subject of science and matters of policy. For the rest we will not abate anything of our endeavour to make THE LANCET worthy of the profession to which it is devoted and which it claims to represent.

SIX-AND-TWENTY years ago Dr. B. W. RICHARDSON added to medical nomenclature a term which has passed into general use—namely, "cardiac apnœa," a term he briefly defined as "breathlessness from the heart, with open air-passages." In his late paper, read before the Medical Society of London, he proposes to introduce another term, "pneumoparesis," which, if the view it is founded upon be equally correct, will find in time as wide an acceptance as that we have previously named. In order to enable our readers to form a correct judgment on the subject of the admission of the new phrase, we will state in the shortest possible space the argument on which the introduction rests. In so far as the word itself is concerned it carries its own meaning. It describes, in tersest form, simple respiratory failure; and although Dr. ANGEL MONEY suggested that the failure referred to is purely vascular or vaso-motor, it cannot be said that the word is inappropriate, because the lungs are of all organs of the body essentially vascular—including, in fact, two distinct vascular systems. The question is whether a condition of disease of the lungs exists which warrants the term and calls for it. In support of the affirmative of this view Dr. RICHARDSON'S exposition runs as follows. Under the general expression "pneumonia" there occur instances in which there is no fever, no acute pain, no rusty expectoration, no preceding rigor—no indication, in short, of symptoms of febrile excitement. In place of these symptoms, however, there are certain other symptoms which of themselves are special and pathognomonic. The sufferers are persons possessing peculiar heredities. They are of phthisical tendency, they are of emotional nature, and are easily susceptible to what are called nervous shocks and exhaustions. Following upon such shocks or exhaustions, physical or mental, they suddenly become prostrate, with emotional or hysterical perturbation. They have cough, without either pain, difficulty of breathing, or much expectoration; and they exhibit strikingly, on the cutaneous surfaces of the neck and face, the red blush which the older writers called "erythema fugax." The pulse is variable and a little quickened, and the breathing is changed in a similar manner, but neither is remarkably modified. The mind, as a diagnostic surface, presents its own special features. Mingled with some emotional excitement there is a fixed belief in the mind of the patients that they shall not recover, but the belief, at the same time, is combined with the most perfect resignation to death. These are the general symptoms. The local, as soon as they are developed, are dry crepitation, strictly pneumonic in character, commencing at the base of the lung posteriorly, as a rule, extending quickly to the other lung, soon becoming moist, and steadily progressing through the pulmonary structures. In spite of all treatment, the mischiefs indicated by the crepitation proceed until death takes place by asphyxia, the mind remaining clear until coma sets in, and the digestive and other functions remaining as little affected as the mind until the final catastrophe. Now that the class of symptoms have been defined there is little difficulty in recognising them. They are known, if not familiarly known, to all who have had a long acquaintance with the practical history of thoracic disease. They have no doubt been connected with other conditions of disease, but they possess, when once correctly pointed out, their own distinctive qualities; they are attended with failure of the respiratory power, and they constitute truly pneumoparesis, whatever may be their cause. But Dr. RICHARDSON,

after thus defining pneumoparesis, goes to its cause. He has seen in experiments the same physical symptoms produced synthetically in the lower animals by an induced paresis of the nervous supply of the lungs. Hence he infers that the disease is of nervous origin. There are subjects in whom the nervous stimulus to the vascular systems of the lungs, nutritive and respiratory, is at all times defective. These, under the influence of depressing causes or of nervous shock, exposure to cold, privation, accident, fear, grief, or even extreme excitement, feel depression in, so to speak, the most defective part, and thereupon the vascular tone of this pneumonic area is reduced. On that the resistance of the minute circulation is lessened, and the physical changes leading to the confirmed organic lesions commence and progress, as related above. It is a fine point whether the change commences in the nutritive vessels of the lung or in the respiratory, but on the whole the author of the theory thinks it begins in the nutritional circulatory channels, the respiratory circulation following in train and yielding the evidence from physical signs of the organic disturbance. This point is novel, and is as applicable to other forms of lung disease as to that under special notice.

Up to this time we have treated of what Dr. RICHARDSON calls acute pneumo-paresis occurring in persons of young or middle life; but, by a further extension of his theory, he gives it another bearing. Pneumoparesis, he argues, is the natural mode of death in the aged, the method of final sleep, the true euthanasia. In the course of the process of senile decay, the nervous supply of the pulmonary vascular systems becomes gradually enfeebled. At last, under the influence of some depressing cause, the failure is complete, so-called congestion of the lungs or congestive bronchitis, ensues, and under the withdrawal of the respiratory function the anæsthetic state is induced which ends in death. Those who die from pneumo-paresis, therefore, in old age, have lived their allotted term; those who die from it in earlier life have been born to a premature death. To the interest attaching to this curious and practical topic there is, we regret to say, one painful part. For pneumoparesis there is, according to our present knowledge, no cure. The "pathies," Dr. RICHARDSON observed, "are, one and all, nowhere; and in this case, as in many others, it seems as if rational treatment receded as knowledge of the true cause of the phenomena of disease advanced." Let us hope this is only a temporary phase in medical art, and that the science which unfolds the mysterious will also discover the way, however slowly, of keeping up the art to its own level.

THE world would fare badly but for the special providence of Lord GRIMTHORPE. It is refreshing in these degenerate and narrow days to see a member of the most exclusive of the professions set to and, from the very altitude of his virtue, lecture the most liberal of them all. Lord GRIMTHORPE evidently expects all the world to look on and see his last struggle in favour of truth in medical science and against authority. Flushed with his successive victories over clock-makers, bell-ringers, architects, and "even ladies," he comes marching on, "not frightened of being washed away by black doses from a set of medical conspirators." What heroism and what humour! What self-complacency and what conceit! The medical profession has encountered many attacks. It may well tremble for the issue of the next one. At first this terrible champion of the homœopaths thought a new Act of Parliament might be necessary for our subjection. But on mature reflection this seems scarcely necessary—the common law will do, with its cases and definitions of conspiracy. We must be compelled to recognise what we regard as false, and go through consultations which we deem to be a farce because our refusing such recognitions and such consultations might injure the man in his business whom we refuse to meet, as if our duty were to promote a medical man's *business*, and not the recovery of our patients. We must leave such knotty points of law, however, to lawyers, and prepare, with what grace we may, for the curious future promised, or rather threatened, for us and for patients, by Lord GRIMTHORPE.

Meantime, however, we may treat a little more closely and seriously—so far as it is possible to treat seriously—the rollicking arguments and statements of Lord GRIMTHORPE, who has come to the rescue of the readers of *The Times* in these dull winter days. We are not without hope that even his lordship may be induced to think that he has not advanced matters by his attempts to restore to the fold of medicine those who have deliberately preferred to have a little "pinfold" of their own. The homœopathists broke away from the profession on the view that a huge discovery had been made that was to rule all medical science and art as respects, first, the *principle* on which remedies were to be selected, and, secondly, the *doses* in which they were to be administered. It is now scarcely pretended that the bulk of homœopaths in practice adhere either to the principle of selection or to the infinitesimal dose. The leading homœopath of London has written a book to show that there are two contradictory principles underlying all therapeutics—the one, *Similia similibus curantur*; the other, *Contraria contrariis curantur*. Such a heresy in his own camp is enough to bring back the spirit of HAHNEMANN, or to provoke him to administer one of those "spiritualised" or "dynamised" doses to the heretic, in which alone he thought there was any virtue. At any rate, the attempt to bind medical men in 1888 by a fancy which took possession of HAHNEMANN in the end of last century, which remains unproven, which even his pretended followers do not allow to dominate their own practice, is one to be resisted by men who love freedom, and who are determined that medicine shall no longer be hindered by one man's fads. Lord GRIMTHORPE compares the resistance of the profession to homœopathy to the objections to the discovery of the circulation and of vaccination. The comparison will not hold for a moment. Take the latter case. It so happens that vaccination was announced about the same time that homœopathy was. Where is the resistance to vaccination? Not in the medical profession, which throughout the civilised world regards it as the most splendid achievement of medical science in its contest with disease. Where is the resistance to homœopathy? In medical science itself. At the end of nearly a century there is an almost universal ignoring of it. In all Europe scarcely a university has a chair recognising it. Lord GRIMTHORPE may explain this by reference to the sheer conservatism or the sheer stupidity of the profession. But, if he thinks, he will not do so. He will be puzzled to believe that a profession which has revolu-

tionised its mode of treatment in this century, which accepted vaccination within a few years of its announcement, and which has led the way in sanitary legislation and in everything tending to abate and abolish disease, is so prejudiced that it wantonly rejects a true principle of therapeutics or insults those who advocate it. The medical profession is not so illiberal as Lord GRIMTHORPE would have the public believe. JENNER himself got his first hints on vaccination from the common people. In later years Sir JAMES PAGET has done magnanimous justice to bone-setters. Surely, the men of such a profession are to be trusted in point of liberality, and it must be the very love of truth that leads them to refuse to be tied, or to allow medical art to be tied, to a fanciful and a false principle. Is there any good to be done by styling the attitude of medical men to homœopaths as "boycotting," by speaking of the "thousands" mended by bone-setters, and of the "over 10,000 homœopathic doctors in England"? These are specimens of gross and most misleading exaggeration on the part of one who uses the names of BUTLER and WHATELEY. In all England there are under 18,000 medical practitioners, and in many of its towns there is not one homœopathic practitioner. In Scotland, that land of advanced education, homœopathy is practically non-existent. Such modes of speaking ought themselves to condemn a case. There is nothing comparable to boycotting in the refusal of medical men to meet their homœopathic brethren. Human life is at stake. The conditions of agreement do not exist. Let homœopathy have its own hospitals by all means, and those who believe in it practise it. But to ask the enormous majority of medical men to give the sanction of the medical profession to an idea which they believe to be false and hindering is unreasonable. The attitude of the medical profession towards homœopathy has been amply justified. And any law which would compel medical men to concur in the strict homœopathic treatment of cases, or to regard it seriously, would, in their estimation, lead weekly to something very like manslaughter. It is difficult for even so clever a man as Lord GRIMTHORPE to realise the bearings of his threats on human life and the decencies which should attend the treatment of the sick. But they are very immediate, and we advise him to extend the freedom of his own profession before he attempts to bind one more liberal with the withes of last century.

Annotations.

"Ne quid nimis."

COLLEGE POLITICS.

BY desire, Mr. Paul Swain of Plymouth, has published an address entitled "College Politics," which he recently delivered to the members of the South-Western Branch of the British Medical Association. Though Mr. Swain may, perhaps, not advance any novel arguments in favour of a reform of the Council of the Royal College of Surgeons, he is peculiarly apt, forcible, and felicitous in the use he makes of the old arguments. He does not insinuate, for instance, that the present Council misapplies the revenue of the College; but he does declare that it is not proper that the great and growing expenditure of the College should be left to the irresponsible control of twenty-four gentlemen who, however estimable in their private character or eminent in their profession, "have not been selected on account of any particular business aptitude." So again, in reference to members of the Council being also examiners, he does not suggest that the money spent in examinations is excessive, or that the gentlemen who have received it are, in the present instance, either incompetent or negligent; but he does maintain that any or all of these contingencies may happen under the present system, which "enables the Council to endow themselves indefinitely out of College funds." He properly and severely condemns the conduct of the Council in the matter of the resolution of the General Medical Council recommending a conjunction of the two Royal Colleges with the Apothecaries' Society for the purposes of examinations. Indeed, all Mr. Swain's criticisms are pertinent and just, and the publication of this address cannot fail to strengthen the hands of those who are endeavouring to eradicate the evils which are inherent in the existing constitution of the College. And in this conjunction it is worthy of note that perhaps never in the history of medical politics has an agitation for reform been promoted and maintained with equal determination and forbearance. The explanation is to be found in the high personal and professional character of those who have set their hands to the work. No one can suppose that Messrs. G. Pollock, Holmes, Willett, Tweedy, and Swain are revolutionists in disguise, or that they are likely to support an agitation which has not for its object the welfare of the whole profession.

BURIAL REFORM.

MEETINGS have recently been held in London and Bristol at which the cause of burial reform has been powerfully and eloquently advocated by the Bishops of Bedford and of Gloucester and Bristol. Drs. Danford Thomas and Septimus Gibbon also spoke at the London meeting, and it is very pleasing to observe that the cause of burial reform is making satisfactory progress, attention being concentrated on the two points of most interest to those sanitary reformers. These are the desirability of using perishable coffins, and of burial in earth-to-earth graves. In other words, it is demanded that burial shall in future be real and in accordance with Nature's own laws. Dr. Hubbard, who also spoke at the London meeting, subsequently addressed a letter to a daily contemporary urging the importance of following the advice given by Mr. Seymour Haden fifteen years ago. His letter and the remarks of some of the speakers at the meeting have elicited replies which certainly require some explanation. Thus it is said that the authorities of some London cemeteries (including that of Kensal Green) prohibit the use of perishable coffins. Other correspondents blame the undertakers for the continuance of imperishable coffins and vault burial. This last is a reproach scarcely merited. The undertaker has been shorn of many of the most profitable surroundings of his trade, and the reform now proposed will revive the question of the elder Mr. Weller, "What would become of the undertakers?" Still, they are wise in their generation, and if perishable coffins are demanded by the public undertakers will readily supply them. The dead now lie in the cemeteries around London in thousands, and even millions. Many complaints have been made of Brompton Cemetery, and the offensive odours emanating therefrom. It is also asserted that in Ilford Cemetery bodies are buried in tiers of twenty or thirty, in a trench 60 ft. long and 16 ft. deep, with only three inches of soil intervening, until the whole trough is filled with a mass of about 300 bodies. These statements should be officially contradicted or brought to the attention of the Home Secretary. Public or common graves are, it is to be feared, necessary evils, but it has always been understood that the regulations

required at least one foot of earth between each coffin. Burial in pits or trenches was believed to be a thing of the past, and while advocating earth-to-earth burial this must never be understood as sanctioning the wholesale burial of paupers or of any class of people. A recent much-to-be-regretted event has again called attention to another urgently needed reform, which, in the interests of health and reason, should not be delayed. A leading citizen of Liverpool has fallen a victim to the practice of standing bareheaded at a funeral. He contracted a chill from which he never recovered, and thus adds one more to the many victims of this senseless though well-meaning custom. It is trying enough to stand on the damp soil, which at this season of the year is what mourners have to do. To remain bareheaded as well is a very severe test to the strongest constitution; but to elderly men who, by force of circumstances, are called upon to attend many funerals, it is surely an unnecessary risk. Most officiating clergymen wear "college" or "skull caps." They should let it be understood that laymen are equally privileged, and are not required to risk precious health for a barren honour to the dead.

THE PHYSIOLOGY OF THEATRICAL TEARS.

THE question of theatrical tears, and whether they be produced by the actor independently of real emotion, has lately been discussed. The question is not without interest, and has been answered in various ways by different actors, some contending that the highest art in this direction is only seen when the artist "feels" his part; while others state that emotional conditions in the actor are fatal to the highest form of theatrical art. To how large an extent our emotions are under control is patent to everybody, for much of our early education is devoted entirely to the formation of habits of control in this direction. Emotions are mainly reflex phenomena, and are produced as the result of thoughts, sounds, or sights. We most of us know what will produce in us a given emotion, and, if we have the power of commanding the conditions, the emotion is sure to follow. It is a happy thing for us that emotions of joy are far more easily produced than emotions of sorrow. We all of us know the passage in "Pickwick" or the particular picture in *Punch* which has made us laugh again and again, but the tears of sorrow or the feelings of dread or terror are not so easily conjured up. Thus it happens that comic actors are met with in profusion, while tragic actors, who are really able to stir the sorrowful emotions in an educated audience, are comparatively rare. It is very doubtful whether an actor can stir up in his audience the higher emotions, unless he abandon himself to the situation of the play, and himself feels to some extent the sorrows or terrors of the scene. An actor who can only manage to stir the emotions of the most easily moved of his audience, whether to laughter or tears, has gone a good way towards success; for emotional states are so infectious that the sound or sight of tears or laughter is sure to cause the prevailing emotion to spread. The really great actor, however, must be capable of doing something more than merely touch the biggest fool of the audience—he must make his audience absolutely forgetful of itself, and be himself the direct, and not the indirect, cause of the emotional state into which it is thrown. To do this the actor must be himself a person of intense feeling, and must for the time experience the emotion he is seeking to portray. Really great acting is a matter of feeling rather than of reasoning intelligence, and we doubt whether an actor who studies and puzzles too much over the subtleties of the author is not in danger of checking the manifestations of his histrionic genius. It is a well-known fact that Master Betty, the "infant Roscius," could, as a boy, stir the higher emotions of the audience by his portrayal of Shakespeare's masterpieces (the subtleties of which he most certainly could not understand), but that this power was, so to say, knocked out of him by a university education, which probably brought home to him the shortcomings of his performances, and, by teaching him to reason about his character, prevented the feeling portrayal of the prevailing emotions. Two of the greatest actors of the present age—Salvini and Ristori—both belong to the emotional Italian race, and it is impossible to believe that during the portrayal of their most successful parts they are not entirely forgetful of themselves and engrossed by the emotions of the scene.

SHEFFIELD WATER SUPPLY.

AFTER many struggles the Sheffield Corporation have become possessed of the town water supply. In 1864 as many as 250 lives were lost by the bursting of one of the company's reservoirs, while the company itself suffered damage to the extent of half a million of money. Powers were obtained from Parliament for charging an additional 25 per cent. on their water rates for twenty-five years, and when towards the expiration of that period they sought to make the increase permanent, the Corporation opposed the Bill and successfully promoted one for compulsory purchase. It is not long since many of the townspeople suffered severely from lead poisoning, which was traced by the medical officer of health to a polluted water supply, and the necessity for the Corporation to have complete control over its provision has doubtless been more fully recognised since that event. During the last Parliamentary session a Committee of the House of Lords, after sitting for nearly three weeks, decided in favour of the Corporation, and the Bill passed that House, the company, before its introduction into the House of Commons, agreeing to the price which should be paid for their property. The exchange is in every sense a proper one; without reflecting on the work performed by many public companies, there is no doubt that water supplies should be under the control of a body elected by water consumers.

THE "WESTMINSTER REVIEW" ON ADULTERATION.

AN article in the current number of the *Westminster Review* contains yet another attempt to solve the great adulteration question. We regret to find in it nothing of practical importance, and much that shows imperfect appreciation of the difficulties involved. After the usual historical introduction, the author discusses the general subject of adulteration, and proves triumphantly that adulteration is wrong. So few doubt this proposition that, although Mr. Bright seems to be one of the minority, it is hardly worth the labour bestowed on it. The illustrations, moreover, which are used in support of the thesis, are singularly inapt. Several distinct offences are jumbled together, each definite enough in its way and highly reprehensible, but against which collectively no single enactment could possibly be levelled. The sophistication of textile fabrics and other manufactured articles, the supply of impure water to dwelling houses, and the offences of three distinct kinds which come under the present Food and Drugs Acts are perfectly distinct in kind. Each should be sternly prohibited, and it appears not impossible that all may ultimately be brought under the province of a single Act of Parliament. But for the present such a comprehensive measure is unattainable, and it is by no means certain that it would be advantageous. In the meantime, a new Food and Drugs Act, which shall embrace and extend all previous Acts of the same kind, is urgently required. Towards the framing of such an Act this latest critic affords no help. His only suggestion seems to be that each individual citizen should be enabled to get analyses made by the public

analyst, and, if necessary, proceedings taken free of cost to himself. This suggestion seems to us practically worthless. In most, if not in all districts, a private person can employ the services of the public analyst for nothing or for a trifling fee, and in case of proved fraud it is the duty of the local authority to institute proceedings. But experience has shown that private persons never, or scarcely ever, take the necessary trouble. It seems they prefer to be cheated, or even to run the risk of being poisoned, sooner than bestow the time which active proceedings would entail. Every Adulteration Act has proved this, and it is now certain that the repression of adulteration cannot be left to private enterprise, but must be carried out by some recognised authority. Whether this authority should be a central one, as in the case of the Alkali Acts, or whether some other authority, stimulated as at present by a central board, with added powers and greater central stimulus, we will not now discuss. But we are certain that it is only by some public authority that the work can efficiently be done.

SLEEP AND CYCLING.

THE cyclists now possess a scientific society of their own, to which many members of our profession belong, and at the meetings of which papers on natural science, antiquities, geography, and mechanics are read and discussed. At their last meeting a paper of great interest was read and debated on the subject of Sleep and Cycling. The author of the paper was Mr. A. Nixon, secretary to the Children's Hospital. Mr. Nixon is widely known in the cycling world as being the first cyclist who rode (and that, too, in an incredibly short time) from Land's End to John O'Groat's on a bicycle, a feat he has repeated, with some others less prolonged but very severe, on the tricycle. In these trials of physical endurance Mr. Nixon has made many observations on the subject of the amount of sleep that has been taken in the efforts referred to. In one of his excursions he rode from Edinburgh to Newcastle, a distance of 120 miles, on a tricycle, in the worst weather, taking but one hour and a half's sleep during the whole period of the journey—thirty hours,—and that short nap on a doorstep, exposed to the cold and to a drenching rain. But what Mr. Nixon has himself endured is comparatively small by the side of some other riders whose feats he related Mr. G. P. Mills rode 865 miles on a bicycle, taking only four hours and a half's sleep during the whole journey. Mr. T. R. Marriott did the same long journey on a tricycle, with from three to four hours' sleep daily, working very hard all the time, and feeling none the worse for his task. But the most remarkable record of the kind was by Mr. Lennox of Dumfries. This gentleman has ridden three days and three nights—so he reported to Mr. Nixon—without once shutting his eyes, and he only once felt, about midnight, rather overtaken with sleep, which passed off as day broke and did not trouble him again. Mr. Nixon accounted, from his own sensations, for the sleeplessness whilst cycling to the vibration communicated from the machine to the spinal cord and brain; and he noticed some after-effects which show that, although well trained and strong riders can play tricks with the fortune of health in cycling, the risk is not worth the result. We entirely concur with the general sense of the meeting to which the facts were communicated: that although it is extremely interesting to know that under emergency the human body is capable of enduring such great strains without sleep, the knowledge should, in the future, be kept for real emergencies; and that a danger to health so extreme should not be encountered for the mere purpose of competitive display. We make these observations not in criticism of the art of cycling, but in its best interests as a healthy pursuit when it is carried out with due regard to the common rules of nature. This fact cyclists will soon find out for themselves as they become more experienced. But the art is young yet, and a friendly word in season may therefore not be thrown away.

THE PROTECTION OF LEICESTER BY VACCINATION.

MR. BIGGS is positively defiant and jubilant over the fact that Leicester, with its severe—justly severe—measures for detecting and isolating small-pox cases, so far enjoys comparative exemption from the plague, as plague it will be if it once gains a footing in Leicester. We have never denied credit to Leicester for its well-organised sanitary police arrangements. There is reason to believe that at least one tremendous epidemic in London, very definite and circumscribed in its origin, might have been controlled or suppressed but for the neglect of such measures on the part of the local sanitary authority. But Mr. Biggs is hallooing before he is out of the wood, and talks nonsense with that glibness which is the privilege of those who are very partially informed. Here are a few specimens. "Every revaccination always implies the failure of the first operation." "Small-pox flourishes where its seeds have been sown by vaccination; but it positively refuses to exist in Leicester." Our readers know that this is not correct, and that but for vaccinated people taking charge of small-pox cases the town would be forsaken by those who now boast of their non-protection. Mr. Biggs will not have to bear alone the responsibility of the unvaccinated in Leicester. It will be shared by parents who have unvaccinated children, and by all adults who go about on the strength of their first vaccination, which may mitigate and modify small-pox occurring to them, but will not prevent it as successful revaccination does. The unvaccinated of Leicester cannot always have the vaccinated sanitary staff of Leicester between them and exposure to the disease.

FIRES IN THEATRES.

THE destruction of the Grand Theatre at Islington has come to us as a terrible shock at the very beginning of what is known as the holiday season. Happily the theatres were empty, and no lives were lost. This was fortunate, as we all remember the appalling scenes of Vienna, Paris, and Exeter. As no death occurred in consequence of the Islington fire there will be no inquest, and there will not be, as there ought to be in the public interest, an exhaustive inquiry into the cause of the catastrophe. A Bill is, we believe, to be introduced into the House of Commons making it compulsory to hold a coroner's inquest in every case of fire, and the most recent catastrophe points to the strong necessity for adopting such a course. If fires in theatres and elsewhere are to be rendered less common, the first step necessary is an accurate knowledge of the causes which produce them, and these cannot be discovered without a public and painstaking inquiry. The Grand Theatre, we are told by the press, was constructed in accordance with the regulations of the Metropolitan Board; but when once the structure caught alight, it burnt like matchwood, and thus we are left in doubt as to the efficiency of these regulations. What can be done towards the protection of the public and the prevention of similar catastrophes? This is the question which we are all asking, and to which the answer is not very clear. It cannot be very difficult to enforce compliance with certain precautionary regulations upon all proprietors of buildings intended for public gatherings, and the time has arrived apparently when an Act of Parliament for the carrying out of this object, of wide application, and administered by Government officials, has become a necessity. A body of unpaid

magistrates are not, as was proved at Exeter, well calculated to enforce the necessary regulations, and some recent discussions have much shaken the confidence of the public in that quintessence of vestrydom, the Metropolitan Board of Works. It seems to us highly probable that a special board will have to be created for the supervision of public buildings and the enforcing of certain regulations framed in the public interest. A body of commissioners and visitors, analogous to those engaged in enforcing the Lunacy Laws, might meet the case. One of the penalties which we pay for crowding into great cities is the loss of individual liberty, and it seems reasonable that all buildings intended for public gatherings should be under the control of public officers. It must not be forgotten, however, that the public benefits largely by the freedom of those who cater for its entertainment. By Acts of Parliament existing knowledge is set fast and progress is checked, and it is doubtful whether the theatre-going public will largely benefit, or whether the best interests of the drama will be served, if the freedom of managers is hampered by still another controlling authority in addition to those by which they are already vexed. If we could give the managers one master instead of three they would be thankful, and we should like to see the Lord Chamberlain become the chairman of a board for the control of all places of public amusement throughout the country. The above remarks are emphasised by the destruction of the Bolton Theatre Royal and the panic at Edinburgh.

SEMCHENKO ON AFANASIEFF'S WHOOPING-COUGH BACILLI.

DR. SEMCHENKO, having investigated the whooping-cough bacteria described by Professor Afanasieff (see THE LANCET, Dec. 2nd, 1887), has satisfied himself that they are the true specific cause of the affection. They appear in the sputum on the fourth day of the disease, if not still earlier. They go on developing in the tissues of the body, and simultaneously with their multiplication the severity of the disease increases. The bacteria disappear before the paroxysms of whooping-cough have ceased, generally when these have been reduced to from two to four in the twenty-four hours. When complications, such as catarrhal pneumonia, arise, they are accompanied by a great increase in the number of whooping-cough bacilli found in the sputum, the pneumonia developed under these circumstances having, according to Dr. Semchenko, several points of difference from ordinary attacks of catarrhal pneumonia. The examination of the sputum of whooping-cough patients is apparently useful, not only for diagnostic purposes, but also as a guide to the prognosis of the course of the disease. Dr. Semchenko's papers in the *Vrach* dealing with the subject give numerous details as to the cases examined, the microscopic investigations, and the bacteriological manipulations employed.

INDULGENT JUSTICE.

IT is an amiable characteristic of English law that it leans to the side of mercy. The principle is an excellent one, and we would not have it altered. There are times, however, when, without in the least desiring to strain this qualifying influence, we feel that something must be done to prevent it from becoming a mere synonym for culpable complacency. Compassion for the accused, if carelessly dispensed, is nothing else than an equivalent for laxity, and may even inflict a positive injustice on the plaintiff. Let us quote an illustrative case. A few days ago a postman in the exercise of his ordinary duty, and without provocation, was bitten by a large dog belonging to the occupier of a house to which he had gone to deliver letters. He was laid up in consequence for three weeks, and naturally applied for compensation for loss of time and wages from the dog's owner. It appeared, however, that the animal was not known to be of a vicious disposition, and this fact alone served to defeat the purpose of the application. Here surely, as the presiding judge himself suggested, the law was unduly indulgent. Let us carry the parallel farther, and suppose that a man, hitherto considered respectable, from some mistaken motive inflicts a physical injury upon an unoffending neighbour. We doubt very much if by thus taking the law into his own hands, while under an erroneous impression, he would raise himself above the penal consequences of his act. Why should not the owner of a dog, who is presumably responsible for the behaviour of the animal, be also amenable for his awkward, though mistaken, violence? The animal, it is true, has not reason to guide him, nor perhaps can he be at all times under his master's eye. It would certainly be hard that, in view of a well-conducted past, so great a matter as his life should be the forfeit of an isolated blunder; but why his innocent victim, and this a man, should endure the effects of his canine displeasure, without a chance of remedy at law, is a puzzle, the solution of which we must leave to our friends of the sister profession. The lot of a postman at this season is, we should say, sufficiently hard, cruelly so, inasmuch as it might easily be ameliorated by a little timely forethought in letter posting. To most men it must surely appear that the needless endurance of painful illness is an addition deserving at least a moderate payment in compensation.

THE FAMILY PHYSICIAN OF THE FUTURE.

THE course of development which lies before the general practitioner is a problem which can hardly fail to interest the majority of his neighbours, both within and without the pale of his profession, almost as much as himself. Is he to remain as heretofore the man of wide intelligence and of many resources, or is he doomed to labour in a sphere narrowed on every side by the encroachments of specialism, the scenes of his former victories divided, subdivided, and allotted in detail to men of one idea? To the latter suggestion we have no reply but an emphatic negative. Similar in its purport, we are pleased to observe, is the treatment of this question by Dr. Andrew Smith in an address read before the Academy of Medicine of New York. The present comparative seclusion of medicine among the liberal professions he ascribes to a want of public spirit in dealing with many matters affecting the common health rather than that of the individual alone. If it would appear in its natural position as an influential reforming force, a change in this direction is necessary. It must, he assures us, concern itself with a variety of human interests with which mere surgical skill and the chemistry of prescriptions have little to do. Generality of the broadest kind should characterise the views of its members, whose representative will be found in a family practitioner possessing an extensive knowledge of the causes of disease and the means of its prevention. He is to be a custodian of the health of families, and will occupy with regard to them a position similar to that of the solicitor with reference to property. It shall be his duty to keep an exact record of the life-history of his patients, and to guide their course in life in accordance with the information thus acquired. The scheme is, doubtless, an attractive one: it presents alike to the practitioner and his charge a prospect of life-long mutual benefit, and it promises to science a means of accurate investigation. In discussing the merits of any such project as this, however, we must ask ourselves how far its efficient execution can be relied on; and we are bound to confess that here, it seems to us, the credit of theory has been somewhat too largely drawn upon. It is hardly to be expected that any considerable number of families will give them-

selves into the hand of a medical adviser to be continuously guided and controlled, even in the interest of their physical well-being. The question of expense alone must limit the application of such a plan to the case of a relative minority rather wealthy than poor. There is about it, also, too much of the sanitarian, too little of the medical element; and we must remember that, notwithstanding the recent advances of hygiene, the power of therapeutics will not soon, if ever, cease to hold an important position. While, therefore, we respect the scientific accuracy and the preventive skill of the promised physician, we should ourselves prefer and expect to be represented by one of somewhat more practical, though allied, character. The general practitioner of the future, we consider, should still essentially resemble his predecessors. More learned he certainly will be, as well as more skilful in details of practice, because endowed with greater advantages of training; but he will also, doubtless, like them, continue to treat the whole man by prevention and by cure, and will be limited in the exercise of his functions only by necessary considerations of time and opportunity.

PATHOGENY OF HYDATID URTICARIA.

URTICARIA sometimes follows the puncture of hydatid cysts and the spontaneous rupture of them into the peritoneum. Some slight irritant in the hydatid fluid becoming absorbed into the circulation is held to be the mechanism of production of the urticaria. M. Debove has attempted to prove the truth of this theory by injecting hydatid fluid into the subcutaneous tissues of individuals never having had nettlerash. In one nothing happened; the second developed a local urticaria; and the third showed characteristic swellings about the site of puncture, and four large plaques on the posterior part of the trunk twenty minutes after the injection; six hours later there appeared a confluent and typical eruption on the front of the arms and forearms. This kind of experimentation from a logical point of view is not perfect. A much larger number of injections should have been made to be of value, because different individuals vary greatly in their mode of response to mere injections of apparently inert fluids. Nevertheless, the observations are interesting, though made by experimentation which would hardly find favour in this country.

NATIONAL PROVIDENT INSURANCE.

The Times does well to keep the thrift discussion moving, and the two long articles which it has recently published will do much to rally public interest in the discussion of Canon Blackley's now somewhat discredited scheme. But while we quite share the disappointment of those who regret that the Parliamentary Commission was unable to present anything better than the somewhat "lame and impotent conclusions" embodied in its recent report, we cannot think that the ultimate solution of the great problem involved will be much advanced by ignoring, as our contemporary does, all the most serious difficulties besetting the one proposition which still "holds the field." Canon Blackley would impose a poll-tax, the amount of which he has fixed at £10 a head, upon all persons between the ages of eighteen and twenty-one. It would appear that he is now prepared, in deference to actuarial objections, to make a substantial addition to this charge. But taking it at the original figure, we do not hesitate to say that to exact this amount from families in the humblest walks of life would be absolutely impracticable. This is a matter in which medical practitioners have special facilities for observation, for their practice brings them into daily contact with the poorest of the poor. And to such the idea that a family of, say, five or six adolescent children of the lower wage-earning class could in a space of nine years lay by for insurance purposes a sum of £100 or £120 will appear simply chimerical. Yet this is what Canon Blackley's scheme involves in a very ordinary case. Did we take for illustration an extreme case, such as a family more numerous than the one supposed, and including invalid members and twins, we should easily arrive at a state of facts which would stagger the sturdiest supporter of the plan. We think, then, that our contemporary is at present following a false scent. The scheme adopted by the National Providence League—we say it with regret—is wholly impracticable, and the sooner it is frankly abandoned the better, if only in order that the energies of that estimable body may be set free to follow a more promising lead. The question is one in which the medical profession will always take the deepest interest, for not only are they compelled, more perhaps than almost any other class of the community, to witness the miseries which improvidence entails upon the poor, but upon them also falls the chief burden of eleemosynary help. It is this fact which gives to the profession a quite special interest in all questions which touch the well-being of the poor, and some right to demand that modest schemes for bettering their condition shall not be crowded out by more ambitious plans, of which the best that can be said is that they are well meant.

THE VACCINATION QUESTION.

A PROPOSAL to alter the Vaccination Acts is sure to receive attention, and coming from Dr. Bond, the medical officer of health for the Gloucestershire Combined Sanitary District, it deserves consideration. Dr. Bond points out that the unwillingness of boards of guardians to enforce vaccination is steadily increasing, and that probably in the end it will be impossible to retain on the statute books laws which in one district lead to the punishment of individuals who, living in another district, would escape without penalty. He anticipates that much of the objection to vaccination would cease if it were not rendered obligatory upon children until two years of age, and argues that the maternal solicitude for young infants, which brings active support for the anti-vaccination movement, would be materially diminished if the children were "sturdy brats" who could run and talk rather than feeble infants at the breast. There are objections he sees to leaving children unprotected against small-pox during the first two years of their lives, and he recognises the difficulties with which the vaccination officer would have to contend in ensuring the vaccination of children at a later period of life than that which is now required, but he thinks this difficulty would in part be overcome by the examination of children attending school, and would be compensated by the removal of parental objections. "An Old London Health Officer," writing to a contemporary, points out that the effect of this postponement would be to introduce a custom of deferring vaccination; to multiply the number of unvaccinated children under two years of age by at least four or five, with the result of multiplying in the same way the deaths from small-pox among them, and he gives, as illustration, the number of deaths of vaccinated and unvaccinated children under two years of age in London in 1884, and shows that there would be an additional 300 or 400 children at this period of life sacrificed to small-pox in the year if Dr. Bond's proposal were accepted. For our own part, we do not believe that a mother would have less objection to the vaccination of a child of two years of age than to a child of three months, while the difficulty of securing this vaccination would be enormously increased. In a rural district such as that of which Dr. Bond has had experience it would probably be possible to trace the movements of families, but in London, where the average period of residence in any one house by the working classes is one of months rather than years, it would be practically impossible

to trace infants; and the effect would be that our vaccination system would no longer derive the assistance it now receives from the system of registration of births. When, further, the migration of families from rural districts to large towns is remembered, we are convinced that "An Old London Health Officer" might have added considerably to the objections which really exist to Dr. Bond's proposal. Already we are cognisant of the hindrance which has been placed in the way of the examination of children at schools; school authorities are well aware of the unwillingness of many parents to have their children educated, and this might be readily increased if attendance at school were to ensure vaccination of the children; yet we believe that if the period at which vaccination is obligatory were removed two years from the time of registration of birth, there would be no other alternative but to make its complete fulfilment dependent on the time of attendance at school. The necessity for education is not sufficiently recognised by English people for this purpose, nor could such postponement take place without a terrible sacrifice of life.

MECHANICAL TREATMENT OF SYPHILITIC ICHTHYOSIS.

THE syphilitic affection of the tongue and mouth known as keratosis or ichthyosis linguæ, or as leukoplakia specifica, which is due to unequal development of epithelium over different papillæ, and which is by no means a very easy affection to treat successfully, caustic, astringent and disinfecting applications having but very little effect upon it, is, according to Dr. Horovitz, best managed by mechanical scraping. He uses a sharp spoon with which he removes the thickened epithelium; in order to accomplish this several sittings may be required. He scrapes away the indurated tissue until the surface presents the appearance of a multitude of minute bleeding points showing that the vascular loops in the papillæ of the dermis have been reached. Iodo-glycerine, glycerine of borax, or a 10 per cent. solution of sulphate of copper is applied to the raw surface. The pain is usually not severe, but in the case of sensitive persons cocaine can be used.

EPSOM COLLEGE FEES.

WHEN it was announced in our columns on June 18th, 1887, that there had been considerable alterations in the bye-laws of the College, we were able to make known to our readers that the late treasurer, Mr. Francis Hird, was in a position to announce for the first time that the heavy debt by which the College had been weighted for many years had during his period of office been gradually diminished, and at last had been entirely wiped out. Dr. Holman, of Reigate, succeeded Mr. Hird as treasurer under these favourable circumstances. He "on entering office pledged himself to the governors present at the annual meeting that the sons of members of the profession should reap the full advantage of any extension of the school, and *this, too, at only a fraction above the prime cost of their education*" (see THE LANCET, June 18th, 1887, p. 1247). The cost of the education at Epsom, however, has apparently increased. It is quite clear that Epsom in the past has afforded at a cost of £50 a year a sufficiently high intellectual training to enable the sons of medical men to gain open scholarships at the hospitals, to matriculate at the London University and at the University of Cambridge. Many members of the profession now occupying most honourable positions were educated at Epsom at the cost mentioned. The heavy debt, too, was being paid off at the same time. If this much could be done then at the figure stated, why not now? The school is not now burdened; provisions are cheaper, and the cost of maintenance is therefore lessened. What, then, can justify this increase of fees at Epsom, to which correspondents in our columns have directed attention? In the prospectus of the College it is stated that the school fees are £52 10*s.* per annum for boys over fourteen years of age; private tuition, carpentry, and chemistry are charged as extras, and these together raise the fees to £62 8*s.* per annum. If to these instrumental music is added at an extra charge of £4 14*s.* 6*d.* per annum, which can scarcely be regarded as an essential expenditure, the total fees would then amount to £67 2*s.* 6*d.* per annum. This amount, exclusive of books &c., an entrance fee of £2 2*s.*, and a contribution of £1 1*s.* a year to the Exhibition Fund, makes the total first year's expenditure in school fees £70 5*s.* 6*d.* Travelling expenses, pocket-money, breakages, &c., must be added to this, so that the whole cost to parents can scarcely amount to less than £75 per annum, as represented by our correspondent, "A Medical Practitioner," in THE LANCET of Dec. 17th. Still, it must be remembered that this amount is not in excess of other schools of the same class, which do not hold out any special inducements to the sons of medical men.

SMALL-POX IN THE PROVINCES.

THE extension of small-pox in the provinces is putting local sanitary authorities on the alert, and Bradford has in some of its arrangements set an example which may with advantage be followed by other towns. All the authorities—sanitary, educational, and Poor-law—are combining to prevent any visitation of the disease assuming serious proportions should it obtain access to the town. The sanitary authority have issued 25,000 handbills calling attention to the need for vaccination and revaccination; the board of guardians has given facilities for the vaccination and revaccination of those who cannot attend the stations at the usual hours; and the school authorities have aided the sanitary authority in their efforts to spread information as to the means which should be adopted for the prevention of small-pox. It is right that precautions should be taken before small-pox becomes prevalent, and the only question which has to be considered is whether the rush of people to be vaccinated will unhinge the permanent provision for this purpose. Usually these measures are resorted to in times of panic, and often when it is too late for them to be of material value. Bradford, under the guidance of their excellent health officer, Dr. Hime, is giving ample warning of the risks of remaining susceptible to small-pox.

SHAM ELECTRICAL APPLIANCES.

NOT without reason does our contemporary, the *Electrical Review*, call public attention to the vendors of "bogus electrical belts" and other worthless appliances constructed with the ostensible object of employing electricity as a curative agent. The following description, which we take from its pages, of two of these contrivances will be of interest as showing the way in which some self-styled medical electricians—men, we should hope, utterly ignorant of both medicine and electricity—will trade upon a capital of misrepresentations: "First we have a specimen of a galvanic generator, which is made thus: A small oval frame of a bituminous nature contains a similarly shaped but smaller zinc plate ornamented in relief with 'lightning flashes.' Placed on this is a copper disc of similar shape, without any separating medium whatever between them. The combination is perfectly dry, and we need scarcely say that the apparatus sent to us is absolutely useless. The second is a magnetic appliance, which may be a so-called chest protector or anything else. Sewn up in a semi-circular piece of silk we find twelve feebly-magnetised pieces of crinoline steel, and this is all. Yet the price of

the article is said to be 35*s*." And a correspondent to the paper adds that upon the production and advertising of such rubbish £20,000 a year is profitably spent. Yet some of us think it strange that the "medicine man" should be able to impose his antics upon uncivilised negroes. It would seem as if the ancient sarcasm were entitled to the rank of a universal truth, "*Populus vult decipi et decipiatur*."

PENETRATING GUNSHOT WOUNDS OF THE CHEST.

DR. GOUZIER has published some observations and statistics regarding the penetrating gunshot wounds of the chest occurring in the French expeditions to Formosa and Tonquin in 1883-85. From his work we gather that such wounds showed a mortality of 10 per cent., which is only about a sixth of that due to similar wounds in recent European wars and in the American war. Apparently, as he suggests, the general employment of antiseptic methods was the cause of this great amelioration. Chest wounds from revolver balls of seven millimetres in diameter generally proved comparatively harmless. Traumatic pleurisy and pneumonia usually terminated favourably, but hæmorrhage, empyema, and compound fracture of the ribs gave much more serious results. He found that the best practice was not to explore unless it was necessary to extract the ball, and not to attempt extraction unless the ball was just beneath the skin or was setting up dangerous complications. In ordinary cases he found the best plan was to close the wound antiseptically; but if there were empyema, to make a counter-opening and to wash out and drain the pleural cavity. Warm antiseptic baths were also found very useful in Tonquin.

THE DANGERS OF COSMETICS.

IT may not be out of place at this season of the year, when cosmetics are so much used by professional and amateur artists at theatrical and other entertainments, to point out that this practice is not devoid of danger. Light cosmetics, such as properly prepared vegetable powders, starch, &c., may be used without any deleterious consequences; but the heavier powders, which are often preferred because they do not come off so readily as the lighter ones, and because they are also cheaper, always contain mineral ingredients. Bismuth is occasionally used, but carbonate of lead in large quantities, mixed with chalk, is most common. Cases of lead colic and lead paralysis have been now and again traced to the wearing of such cosmetics, especially if applied night after night, and many cases of the milder forms of lead-poisoning, which at first seemed difficult to explain, have been shown to be due to the habitual use of these preparations.

TRANSMISSION OF TUBERCULOSIS BY THE RESPIRATORY PASSAGES.

FROM experiments recently made on animals, MM. Cadeác and Mallet have shown that the respiratory passages are very favourable seats for the development of tuberculosis when the bacilli which penetrate to their interior are conveyed in distilled water or an inert liquid. The development of the bacilli, however, finds no encouragement if the respiratory passages be sound and the bacilli conveyed in the dust. The net result of their experiments goes to show the importance of preventing simple catarrh of the respiratory passages. It would seem as though irritation of the air channels and the presence of tubercular bacilli were the only two necessities for the development of tuberculosis. The animals experimented with were rabbits, notoriously subject to tubercle: so that it is possible that there must be a proper soil for the growth of the bacilli as well as some simple lesion affording a point of entrance for them into the system.

THE CROWN PRINCE OF GERMANY.

IN our issue of Oct. 15th, last year, we pointed out that there are two forms of chronic inflammation of the larynx: one in which the mucous membrane alone is affected, which is of a trivial nature, often lasting a lifetime without causing any other inconvenience than occasional hoarseness; and another more serious disease, which leads to interstitial thickening, ulceration, and excrescences. We expressed a hope at that time that the excellent general health of the Crown Prince would prevent the development of these sequelæ, but it appears that, after all, the illness of His Imperial Highness partakes of the character of the more severe form of chronic laryngitis. In the early part of November, when the great consultation of physicians took place, there was a rapidly growing tumour with an ulcerated surface, and enlargement of the glands of the neck. Although no microscopic examination of the growth could be made, it is not surprising that the physicians in attendance considered themselves justified in believing the disease to be cancer. The signs, we are able authoritatively to state, have now completely changed, the growth has shrunk to a fourth of its former bulk, the ulcer on its surface has healed, and its place is occupied by a cicatrix, whilst the enlargement of the glands has totally disappeared. It is obvious that the condition now is therefore the very opposite to that which presented itself in November; and it may not unreasonably be hoped that the case is one of chronic interstitial inflammation, associated with perichondritis. It must not be forgotten that Professor Virchow never found any malignant elements in the portions of growth removed by Sir Morell Mackenzie on three occasions, and, further, that Professor Virchow has since carefully looked through all the specimens accessible to him, with a view of discovering, if possible, whether any case exists in which a benign growth has been found to be present in the immediate neighbourhood of a cancer. Not one single instance was found. Now, as it is highly probable that the whole morbid process which has been taking place during the past year is part and parcel of the same disease, there seem to be reasons for hoping that, after all, the new formations may not be of a malignant nature.

FEVER IN LONDON.

SCARLET FEVER contributed but 104 new cases to those in the hospitals of the Metropolitan Asylums Board during the week ending December 31st, this number being little more than two-thirds of that admitted during the preceding week; the hospitals are therefore gradually becoming emptied. Each week it may be anticipated that the unused accommodation of the Board will increase, and up to the present there is no serious demand for beds on account of the prevalence of any other disease. Enteric fever cases admitted during the week numbered 13, small-pox 2, the patients being received from Newington and St. Pancras, while one case of typhus fever was removed from Limehouse.

ACIDS OF HUMAN BILE.

CHOLALIC ACID is not identical in the different species of animals. Hammersten and Rayer have shown that cholalic acid of man differs from that of the ox chiefly in the slight solubility of the baryta salt. Latschnikoff has found in the bile of the ox, apart from cholalic acid proper, a peculiar acid, to which he has given the name of "choleinic acid." According to the analyses of Schotten, the same holds good of the bile of man; the acid united with glycocoll and with taurine is not only unique, but the cholalic acid proper is accompanied by another acid richer than it in hydrogen and carbon, but less rich in oxygen, and not giving Pettenkofer's

test in the same way as the former; this new acid is not like or homologous with the choleinic acid of the ox, being special to man, is named "fellinic acid."

FOREIGN UNIVERSITY INTELLIGENCE.

Dorpat.—The eighty-fifth anniversary of this, the Russo-German University, has just been celebrated. It was remarked that, while no less than four of the other Universities of Russia are now closed on account of disturbances amongst the students, Dorpat has always been entirely free from troubles of this nature, and has never once been closed for political reasons.

Innsbruck.—Dr. A. Jansch of Vienna has been appointed to the chair of Syphilis and Dermatology.

St. Petersburg.—Dr. Siraki has been approved as *privat-docent* in Dermatology at the Military Medical Academy. Drs. Valther, Chistovich, and Burjinski, all of whom have distinguished themselves in the department of internal medicine, have been sent abroad at the expense of the Crown, to study at different foreign medical faculties.

Vienna.—Dr. Albert, Professor of Surgery, has received the title of *Hofrath* (Imperial Councillor).

IT appears from the *Publishers' Circular* that the total number of new books and new editions published in 1887 in Medicine and Surgery shows a slight addition on the previous year. There were produced 133 new books and 77 new editions. Of all the new books and new editions, under a general classification of the whole, published in 1887, the total number is about 500 in excess of the previous year. *Inter alia* Theology shows an increase of 60 or 70, educational works over 100, while in juvenile works the increase is less marked. Novels keep up their average. Politico-economical books are less in number than usual, and that is the case in the Arts and Sciences, including illustrated volumes. In History and Biography there is a prominent rise in the issue of new works. The aggregate total for the year of new books and new editions is, respectively, 4410 and 1276.

FROM the report of the results of analyses of the Metropolitan Water Supply during last November by Dr. E. Frankland, F.R.S., it appears that the Thames water, distributed by the Chelsea, West Middlesex, Southwark, Grand Junction, and Lambeth Companies, contained in every case a markedly greater portion of organic matter than in the samples of any month since the beginning of 1887, although the absolute amount was by no means excessive for this season of the year. The water principally derived from the River Lea, and sent out by the New River Company, contained only a very small proportion of organic matter, the amount in the East London Company's supply being also less than that in any of the Thames waters. All the samples were clear and bright.

HER MAJESTY has been pleased to signify her intention of conferring the honour of Knighthood upon Dr. William Tindal Robertson, M.P.; and has approved of the promotion in the Civil Division of the Order of the Bath of Sir Robert Rawlinson, C.E., C.B., whose retirement from the office of Chief Engineering Inspector of the Local Government Board we announced in our last issue.

THE measles epidemic in Canterbury continues to spread, and a large proportion of deaths from the disease is recorded, on one day there being as many as thirteen funerals of children who had died from it. In the villages of East Kent, where the epidemic started, there is now a sensible diminution in the number of cases.

THE death is announced at Leamington of Deputy Surgeon-General Henry Martyn Fraser, M.D. He entered the medical department of the Army as assistant-surgeon in 1849, and served throughout the Indian Mutiny, being present at the siege and capture of Lucknow, where he acted as sanitary officer to the forces under the commander-in-chief. He was also present at the operations resulting in the taking of Sandee in 1858, when he was chief medical officer, with the force under Brigadier Hale. He received for his services a medal with clasp, and became surgeon in 1857 and surgeon-major in 1869, being placed on half pay in 1874.

A MEETING of the Executive Council of the Association for Promoting a Teaching University in London has been called for Monday, January 9th. The procedure to be adopted by the Association with regard to the petitions to be submitted to the Privy Council by the 16th inst. will come under discussion.

AT the meeting of the Epidemiological Society on Wednesday, the 11th inst., the evening will be devoted to the discussion of Dr. Klein's paper on "Some of the Infectious Diseases common to Man and the Lower Animals."

AN Order in Council is published in the *London Gazette* of the 3rd inst., extending the provisions of the second part of the Medical Act, 1886, to Ceylon.

W. WILLIAMS, F.R.C.S. Eng., a well-known practitioner in Brentford, died suddenly at Gunnersbury station on the 20th ult.

REPORT
OF
The Lancet Analytical Sanitary Commission
ON
HOUSE FILTERS.

IN the present day everyone would, if he could, select a pure water supply for his house; but, unfortunately, selection is in many cases all but impossible. There is often but one water supply available, and the only question is how to make the best of it. It is true that it is always possible to store rain water, and, if great care is used, rain water may be made to yield a pure though unpalatable supply. For this purpose duplicate storage reservoirs must be provided; the first rain which falls after drought must be diverted from the reservoirs and rejected, and the reservoirs themselves must be frequently cleansed. If these precautions are neglected the water soon becomes offensive and dangerous. Some of the foulest water we have ever examined has come from the underground rain-water tanks so often found by old houses. The common remedy for suspicious or objectionable waters is filtration, and recent researches have shown that this remedy is far more effectual than was at one time supposed. We should be the last to advocate the use of a polluted or even of a doubtful water, but, if no other can be obtained, it is consoling to know that the danger may be reduced to a minimum by efficient filtration.

Many different filters are now in common use, and we have thought it our duty to submit some of these to simple practical trials and tests. Many experiments were made; and although we have not been able to make the inquiry exhaustive, we have gained experimental evidence of some value. The trials have, at any rate, had the merit of being extremely severe. The method adopted was the following:—

Each filter was supplied with similar quantities in suc-

cession of two highly offensive waters, the first water being allowed to drain away before the second was added. 1. New River water containing twenty-four fluid ounces per gallon of fresh urine. 2. Dirty Thames water drawn from the river near Charing-cross. These waters were submitted to a qualitative examination before and after filtration, and the results are stated below. In every case the observations are given in the same order. Only a single trial with each filter was possible, and this we freely admit is a defect in the experiments, as duration is one important factor in deciding on the merits of a filter.

BEFORE FILTRATION.

(*a*) Water with urine:—
1. Appearance: dull yellow.
2. Smell after warming: aromatic.
3. Oxygen indication (deci-normal permanganate acidulated with sulphuric acid): rapid reduction.
4. Ammonia (Nessler test): instant precipitate.
5. Phosphates (molybdate of ammonium): yellow precipitate.
6. Chlorides (nitrate of silver): large precipitate.
7. Sulphates (chloride of barium): slight precipitate.

(*b*) Thames water:—
1. Appearance: dirty; turbid; many water fleas.
2. Smell: fishy.
3. Oxygen: rapid reduction of test.
4. Ammonia: deep colour; no precipitate.
5. Phosphates: none found.
6. Chlorides: much.
7. Sulphates: distinct reaction.

AFTER FILTRATION.

A. The Spongy Iron Filter Company, 22, New Oxford-street, London (Bischof's Patent Spongy Iron Filter).

(*a*) Urine water:—
1. Appearance: good and bright.
2. Smell: slight earthy.
3. Oxygen: no reduction even on warming.
4. Ammonia: slight colour; no precipitate.
5. Phosphates: no reaction.
6. Chlorides, 7. Sulphates } about the same as in unfiltered water.

(*b*) Thames water:—
1. Appearance: bright.
2. Smell: faint, earthy.
3. Oxygen: no reduction, even on warming.
4. Ammonia: yellow colour; no precipitate.
5. Phosphates, 6. Chlorides, 7. Sulphates } about the same as in unfiltered water.

B. The Magnetic Filter Company, 32a, Euston-square London (Spencer's Patent).

(*a*) Urine water:—
1. Appearance: good and bright.
2. Smell: slight.
3. Oxygen: no reduction, even on warming.
4. Ammonia: reaction distinct, but less marked than in unfiltered water.
5. Phosphates: no reaction.
6. Chlorides, 7. Sulphates } about the same as in unfiltered water.

(*b*) Thames water:—
1. Appearance: bright.
2. Smell: slightly earthy.
3. Oxygen: no reduction, even on warming.
4. Ammonia: immediate precipitate.
5. Phosphates: no reaction.
6. Chlorides, 7. Sulphates } about the same as in unfiltered water.

C. Maignen's Filtre Rapide.

(*a*) Urine water:—
1. Appearance: somewhat dull.
2. Smell: slightly earthy.
3. Oxygen: no reduction even on warming.
4. Ammonia: heavy precipitate.
5. Phosphates: slight reaction.
6. Chlorides, 7. Sulphates } about the same as in unfiltered water.

(*b*) Thames water:—
1. Appearance: bright.
2. Smell: slightly earthy.
3. Oxygen: no reduction, even on warming.
4. Ammonia: very strong precipitate; ammonia could be detected, even by the potash test.

D. The London and General Water-purifying Company, 157, Strand (charged solely with animal charcoal).

(*a*) Urine water:—
1. Appearance: good.
2. Smell: slightly earthy.
3. Oxygen: no reduction, even on warming.
4. Ammonia: very strong precipitate.
5. Phosphates: slight reaction.
6. Chlorides, 7. Sulphates } about the same as in unfiltered water.

(*b*) Thames water:—
1. Appearance: good.
2. Smell: slightly earthy.
3. Oxygen: no reduction, even on warming.
4. Ammonia: very strong precipitate.
5. Phosphates, 6. Chlorides, 7. Sulphates } about the same as in unfiltered water.

Other filters have also been submitted to examination, the outcome of which proved less favourable than in the case of those above-mentioned. We make no comments on these trials, the results of which speak for themselves; we may, however, remind our readers that experiments have shown that animal charcoal soon loses its power and becomes worse than useless unless frequently renewed. It is curious that gas coke has not been more generally used; it is an excellent filtering agent, and retains its power for a long time.

Pharmacology and Therapeutics.

RESORCIN IN LARYNGEAL TUBERCULOSIS.

Dr. M. A. Fronstein of Moscow, writing in the *Russkaya Meditsina*, on resorcin in laryngeal tuberculosis, states that he has found that this substance, though not so powerful a local anæsthetic as cocaine, acts more satisfactorily in allaying the pain and distress caused by laryngeal ulceration of tuberculous origin. In out-patient practice he applies a 10 per cent. solution, and if after a minute or so the pain is not decreased, he repeats the application, using a 20 per cent. solution. He then gives the patient a supply of this latter solution and a brush, and teaches him to apply it himself, the situation of the most painful spot being his guide. As a rule patients can manage the application pretty well, as the ulceration is usually situated on the arytenoids or on the edge of the epiglottis, localities tolerably easy of access. Where possible, of course the operation should be performed by a medical man with the aid of the laryngoscope. In addition to these direct applications, a spray containing 2 per cent. of resorcin is used several times a day. Under this treatment considerable improvement was usually manifest, and sometimes, when cocaine was substituted for resorcin, the patient would beg that the first remedy might be given him again, as the change had not suited him. Another advantage resorcin has over cocaine is its comparative cheapness, the price being only about 1*s.* per ounce, whereas the hydrochlorate of cocaine is still 5*s.* a drachm.

HALF-DRACHM GLYCERINE ENEMATA.

Dr. St. v. Vámossy has found that an enema of half a fluid drachm of glycerine will, as a rule, produce a tolerably copious evacuation within two minutes. The stool is not loose like those produced by purgatives, but well formed; the more fæcal accumulation there is in the bowel, the more energetically the glycerine acts. Generally more than one evacuation is produced, but for two or three days afterwards there is constipation. The mode of action probably depends on the setting up of a hyperæmic condition of the mucous membrane of the lower extremity of the rectum which stimulates the nerves supplying it, and thus by reflex action causes an increase in the peristaltic action of the muscular coat of the bowel. Some sensitive patients complain of a burning sensation at the anus when pure glycerine is used, so Dr. Vámossy suggests that it may in these cases be diluted with a third part of water. It is of

course important to use only chemically pure glycerine, as this substance is liable to contain chlorine, which of course would tend to irritate the mucous membrane. He employed glycerine enemata in 150 cases of various kinds, including simple constipation, intestinal affections, acute febrile diseases, surgical operation cases, and apoplexy, and from this considerable experience he is able to recommend it to other practitioners, both for hospital and private patients of all ages and both sexes.

CHOREA TREATED BY ANTIPYRIN.

The treatment of chorea by antipyrin is very simple; it consists in the administration of the drug in syrup of orange. One gramme of antipyrin is dissolved in twenty grammes of the syrup, and given with or without the addition of water. Therapeutical effects were obtained by Legroux when three grammes of antipyrin were ingested daily. He has employed it in six cases, and states that it is one of the most rapid, certain, and inoffensive methods of treatment. One case was cured in six days, and the worst case yielded to the drug in twenty-seven days.

RESORCIN IN SEA-SICKNESS.

Dr. Justus Andreer has found resorcin very useful in sea-sickness on transatlantic voyages. A single dose of from ten to twenty grains given early before vomiting has actually often removed the giddiness and nausea, and enabled the patient to sleep comfortably. In persistent and worse cases larger doses two or three times a day produce excellent results. No ill effects were observed, but, on the contrary, the treatment appeared to promote the appetite and digestion.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

On the Sanitary Circumstances of the Eastry Rural District, by Mr. SPEAR.—This rural district, on the North Downs in Kent, is naturally a very salubrious one, but it suffers exceptionally from some of the so-called zymotic diseases. Thus, "fever" has a rate of mortality 16 per cent. above the average for England and Wales, and diphtheria a mortality rate 23 per cent. above the corresponding average. Towards the close of 1886 there were twenty-two cases and eight deaths from diphtheria in Ash, and though its spread was associated with school attendance, yet the medical officer of health declared the condition of the village to be such as to foster a disease of the nature of diphtheria. In like manner, the state of Wingham and of Eastry has been reported against, and Mr. Spear now supplies evidence confirmatory of considerable neglect in sanitary administration. At Ash the stream is filthy to see and horribly offensive to smell, and yet lower down, where its volume is augmented, it is used for drinking purposes. The inhabitants are also unable to secure proper cleansing of privies and ashpits, a difficulty that forms an insuperable barrier to the substitution of proper closets for the objectionable privy-pits. Water in wells is also much polluted, and it is stated that forty separate outbreaks of typhoid fever are recorded in the village, polluted water being in many instances alleged as the cause. The more pressing needs of the various villages in the rural district are as follows:—The formation of a special district to comprise the village of Ash, with a view of providing necessary works of sewerage and water supply; the formation of another district, comprising Eastry, Wingham, and Worth, for the same purposes; the abolition of cesspit privies; action under the Public Health (Water) Act, 1878; and the enforcement of proper bye-laws.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Birkenhead Urban District.—On a population of 95,370, Mr. Francis Vacher records, for 1887, a birth-rate of 33·74 and a death-rate of 18·95 per 1000, the death-rate being lower than in any of the twenty-eight boroughs and cities of England and Wales, except three. Diphtheria was somewhat more fatal than usual, and the number of deaths ascribed to diarrhœa is about 50 per cent. in excess of the average number, the excess of mortality being equally distributed over the borough. There were 18 cases of typhus, mainly at the beginning of the year, and out of this number 14 were removed to the borough fever hospital. The disease is mainly regarded as due to the constant intercommunication between Birkenhead and Liverpool; but Mr. Vacher thinks it can scarcely be impossible that the fever should be produced by the concentration of the exhalations of unwashed bodies and clothing. Under the Act requiring compulsory notification of infectious diseases 1332 cases were reported, 618 being cases of scarlatina and 595 of measles. The report contains an account of work done, a record of special reports prepared in view of various contingencies, such as the possible importation of cholera, a statement as to the disinfection of infected houses, and other articles; and under a number of headings advice is given as to action in the future with a view of removing causes known to be inimical to health.

Berkshire Combined Districts.—Twelve sanitary districts are included in the combination for which Dr. Woodforde acts as medical officer of health; and each of these is separately reported on. In the Hungerford rural district there is evidently much need of a proper water supply, and such remedial measures as have been adopted have as yet in some cases only led to the obtaining of a supply of tolerable quality. The question of cost in reaching the water-bearing strata is the main difficulty experienced. Again, in the Abingdon rural district there is an absence of good water, and five of the samples analysed were examined because their use was suspected to have been connected with fever or diphtheria. In Abingdon town no excuse remains for resorting to suspicious wells, for a public service is there available; but, notwithstanding this, only seven fresh service pipes had been laid on from the mains during the year; whereas, well water of very doubtful purity and wholesomeness remains in use, and there are grounds for associating preventable disease with its consumption. In the Easthampstead rural district it was reported during the year that the provision of proper means of sewerage was becoming of pressing importance in Bracknell and Bullbrook, and in the latter place enteric fever has been brought about by the use, for drinking purposes, of a stream reported on as untrustworthy. Sunninghill Bog, in the Windsor rural district, still remains a source of difficulty, and the water-supply is generally unreliable. A neighbouring water company have, however, now decided to carry their mains into the locality.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5333 births and 4402 deaths were registered during the week ending December 31st. The annual rate of mortality in these towns, which had been 22·1 and 20·8 per 1000 in the preceding two weeks, rose last week to 24·8. During the thirteen weeks of the past quarter the death-rate in these towns averaged 21·1 per 1000, and was 1·1 below the mean rate in the corresponding periods of the ten years 1877-86. The lowest rates in these towns last week were 18·5 in Brighton, 19·7 in Huddersfield, 20·8 in Norwich, and 21·1 in Derby. The rates in the other towns ranged upwards to 31·0 in Halifax, 31·1 in Oldham, 32·5 in Manchester, 33·7 in Preston, and 33·9 in Bolton. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 500 and 455 in the previous two weeks, rose last week to 503; they included 183 from whooping-cough, 84 from scarlet fever, 86 from measles, 52 from "fever" (principally enteric), 38 from diphtheria, 32 from diarrhœa, and 28 from small-pox. No death from any of these zymotic diseases was recorded in last week Halifax, whereas they caused the highest death-rates in Preston, Nottingham, and Sheffield. The greatest mortality from whooping-cough occurred in Salford, Oldham, London, Derby, and Leeds; measles in Newcastle-upon-Tyne, Birmingham, Plymouth, Nottingham, and Bolton; scarlet fever in Birkenhead, Norwich, Oldham, Huddersfield, Blackburn, and Preston; and "fever" in Portsmouth, Nottingham, and Preston. The deaths from diphtheria in the twenty-eight towns included 22 in London, 3 in Newcastle-upon-Tyne, 2 in Oldham, and 2 in Hull. Small-pox caused 24 deaths in Sheffield, 2 in Bristol,

1 in Leeds, and 1 in Hull, but not one in London or in any of the twenty-three other large provincial towns. The Metropolitan Asylum hospitals contained only 7 small-pox patients on Saturday last, an increase of but 2 upon the low number at the end of the previous week. The number of scarlet fever patients in the Metropolitan Asylum hospitals and in the London Fever Hospital at the end of last week was 2184, against numbers declining steadily in the three preceding weeks from 2764 to 2225; the cases admitted showed a further decline from the numbers in recent weeks. The deaths referred to diseases of the respiratory organs in London, which had been 413 and 357 in the preceding two weeks, rose last week to 442, but were 119 below the corrected average. The causes of 137, or 3·0 per cent., of the 4402 deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Brighton, Leicester, and Norwich; and the largest proportions of uncertified deaths were recorded in Halifax, Bradford, Sheffield, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 23·0 and 22·4 per 1000 in the preceding two weeks, rose to 24·3 in the week ending Dec. 31st; this rate was, however, 0·5 below the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 14·6 and 15·8 in Perth and Leith, to 29·3 in Dundee, and 35·9 in Paisley. The 607 deaths in the eight towns showed an increase of 48 upon the number in the preceding week, and included 24 which were referred to whooping-cough, 14 to measles, 13 to diphtheria, 10 to diarrhœa, 7 to scarlet fever, 5 to "fever" (typhus, enteric, or simple), and 1 to small-pox, the latter being, in fact, stated to be a fatal case of chicken-pox in Edinburgh; in all, 74 deaths resulted from these principal zymotic diseases, against 75 and 80 in the preceding two weeks. These 74 deaths were equal to an annual rate of 3·0 per 1000, which exceeded by 0·2 the mean rate last week from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 29, 26, and 25 in the previous three weeks, further declined last week to 24, of which 10 occurred in Glasgow, 4 in Dundee, and 3 in Leith. The 14 fatal cases of measles also showed a further decline from recent weekly numbers, and included 8 in Dundee and 5 in Edinburgh. The deaths referred to diphtheria, however, showed a marked increase; 8 were returned in Glasgow, 2 in Edinburgh, and 2 in Greenock. The 7 fatal cases of scarlet fever were fewer than in any recent week, and included 4 in Glasgow. The 5 deaths referred to "fever," of which 2 occurred in Paisley, showed a decline of 12 from the exceptionally high number in the previous week. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 163 and 132 in the preceding two weeks, rose last week to 184, and exceeded the number returned in the corresponding week of last year by 5. The causes of 61, or rather more than 10 per cent., of the deaths registered during the week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 35·6, 38·7, and 29·4 per 1000 in the preceding three weeks, rose again to 36·2 in the week ending December 31st. During the thirteen weeks of the quarter ending on that day the death-rate in the city averaged 31·9 per 1000, the mean rate during the same period being but 20·0 in London and in Edinburgh. The 245 deaths in Dublin last week showed an increase of 46 upon the number in the previous week; they included 6 which resulted from scarlet fever, 3 from whooping-cough, 2 from "fever" (typhus, enteric, or simple), 2 from diphtheria, 2 from diarrhœa, 1 from measles, and not one from small-pox. Thus the deaths referred to the principal zymotic diseases, which had ranged in the preceding five weeks from 33 to 24, further declined last week to 16; they were equal to an annual rate of 2·4 per 1000, the rate from the same diseases being 3·1 in London and 2·8 in Edinburgh. The 6 fatal cases of scarlet fever exceeded the number returned in the previous week, whereas the deaths referred to each of the other principal zymotic diseases showed a decline. The deaths of infants corresponded with the number in the previous week, while those of elderly persons showed an increase. Six inquest cases and 4 deaths from violence were registered within the city; and 66, or more than one-fourth, of the deaths occurred in public institutions. The causes of 41, or nearly 17 per cent., of the deaths during the week were not certified.

THE SERVICES.

WAR OFFICE.—Scots Guards: Brigade Surgeon William Ralph Lane retires on retired pay, with the honorary rank of Deputy Surgeon-General (dated Dec. 31st, 1887).

ARMY MEDICAL STAFF.—Surgeon-General Herbert Taylor Reade, V.C., C.B., is granted retired pay (dated Dec. 31st, 1887).—Surgeon-Major Jas. Daniel Crowe is granted retired pay, with the honorary rank of Brigade Surgeon (dated Dec. 31st, 1887).

The name of Surgeon-Major Philip Henry Eustace Cross has been removed from the list of Retired Departmental Officers (dated Dec. 17th, 1887).

ADMIRALTY.—The following appointments have been made: Surgeon John S. Lambert to the *Wye;* Surgeon C. Ward, M.D., to the *Royal Adelaide;* Mr. Murdoch Mackenzie to be Surgeon and Agent at Stornoway; and Mr. John F. Somerville to be Surgeon and Agent at Swantage.

ROYAL NAVAL ARTILLERY VOLUNTEERS (Liverpool Brigade).—Mr. Hugh Prytherch to be Surgeon (dated Jan. 2nd, 1888.)

Correspondence.

"Audi alteram partem."

THE DISCUSSION ON THE SO-CALLED HENDON COW DISEASE.

To the Editors of THE LANCET.

SIRS,—In your issue of Dec. 24th, 1887, you report the following statements by Dr. Klein:—

1. "The ulcers in the Hendon cows were deeper, smaller, and healed up more rapidly; in eight or ten days the crust was gone."

2. "In the Wiltshire cows there were large superficial ulcers; there was no substance in them, merely a slight granulating surface underneath the scab."

3. "From Cow 1.....he got an organism, which he planted in agar-agar-Brand-extract-peptone mixture, but it refused to grow."

The writer of your leader on this subject of the same date states:—

4. "Those best informed on the characters of vaccinia declared that the pustules produced on the calf which Professor Crookshank exhibited to the Society had none of the characters of vaccinia."

5. "We understand that experiments are now in progress for crucially testing the point."

In answer to these quotations allow me to draw your attention to the following statements:—

1. "These scabs may remain attached *for five or six weeks,* or *may* fall off in ten days or a fortnight, *a smaller one forming afterwards.*" (Dr. Cameron's account of the disease at Hendon, Trans. Epidem. Soc., vol. v., p. 109, and Fifteenth Annual Report of the Local Government Board, 1885, 1886 p. 87. The italics are mine.)

2. In Wiltshire cow No. 1, I frankly admit there was a spreading *superficial* ulceration of one teat; but in Wiltshire cow No. 2 there was not a similar condition. The ulcers were circumscribed, and a section of one of those ulcers gives under the microscope almost a fac-simile of one of Dr. Klein's plates of a Hendon ulcer. (Fifteenth Annual Report of the Local Government Board, plate x.)

3. I find that the organism referred to does grow on Brand's-extract-agar-agar-peptone mixture, made from Dr. Klein's own recipe.

4. I find that it is very little known that one is not likely to get exactly the same result with a vaccine which has been "nursed up" for years and has never been humanised, as with retro-vaccinated lymph from a milker's hand.

5. Both the calves which were successfully vaccinated from the milker's thumb have been revaccinated, with negative result.

The details of this additional evidence, and also of still further investigation, I hope to lay before the next meeting of the Pathological Society.—I am, Sirs, yours &c.,

EDGAR M. CROOKSHANK.

Bacteriological Laboratory, King's College, Jan. 4th, 1888.

A DOCTOR'S INCOME.

To the Editors of THE LANCET.

SIRS,—The subject of medical incomes has been much commented on and discussed in the columns of THE LANCET during the past year. Amid much diversity of opinion there was one matter upon which agreement was general—namely, that the average earnings of a medical man are unpleasantly small. Exceptions were made by some as regards hospital physicians and surgeons, whose incomes are commonly believed both by the professional and the non-professional public to be not only exceeding great but easily earned. The letter signed "A Hospital Surgeon," which appeared in THE LANCET on June 25th, showed that this does not at all events apply to *young* hospital surgeons. As one of these, I should like to show what a year's work means. Ten years ago I was elected to the surgical staff of an ophthalmic hospital, and about seven years ago to the ophthalmic department of a general hospital, to which a large medical school is attached. For eight years after obtaining my qualification sixteen years ago my income from professional fees barely averaged £100 a year. After that, however, it steadily increased, till last year it amounted to——well, it perhaps does not much matter what the precise amount was; it was sufficient, and, so far, I am satisfied. But whatever it was, it was certainly not exceeding great, nor was it easily earned. Only to mention one incidental matter, it necessitated the writing of over 2000 letters, short or long. But what I wish more particularly to point out is that the exigencies of medical practice require the hospital surgeon to perform an amount of gratuitous labour of which few persons seem to have any conception. My case may, I believe, be taken as a sample. At neither of the hospitals with which I am connected is there any remuneration for the services rendered to the institution itself. I attend each twice a week, and during the past year these attendances (including the time occupied in going to and fro) have consumed more than an aggregate of 800 hours, or 100 working days of eight hours each. I have seen more than 5000 different cases at least once, and many of them several times, and have performed over 200 major operations on the eye, including seventy-six for the removal of cataract, and forty-seven iridectomies. Nor is this all. Besides the unremunerated work at the hospitals, I find that I have seen or visited over 400 *bonâ fide* private patients who, on one ground or other, were entitled to gratuitous help and advice, or took them. I have also been called upon to perform seven iridectomies, two excisions, and one operation for the extraction of cataract, besides several minor operations in private, without fee. I am far from grudging this service, inasmuch as much of it was rendered to medical brethren or persons directly dependent upon them. I merely refer to it as a part of the yearly round of duty. This fact however remains: it would seem that as professional practice is at present conducted, even a fairly successful hospital surgeon must expend a substantial portion of his time, energy, health, and strength in the performance of unremunerated labour, and suffer the corresponding mental and physical anxiety and wear and tear before he begins to earn even a modest professional income.

I am, Sirs, yours truly,

Jan. 2nd, 1888. J. T.

THE FEVER EPIDEMIC IN EGYPT.

To the Editors of THE LANCET.

SIRS,—Your Cairo correspondent has raised certain questions as to the nature of the epidemic of fever at present prevalent in Egypt, and amongst others its infectiousness.

The history of one family resident near Alexandria serves, I think, to support the theory of propagation by infection. In the first week of November two daughters had fever, severe frontal headache, pains (mainly muscular) in back and limbs, &c., followed on subsidence of the fever after four days by a well-developed scarlatinal rash. A fortnight later the mother had a rigor followed by similar symptoms and a scarlatinal rash. In the first week of December a son had a similar but more severe attack, and in his case the rash was abundant on his body, both front and back, and was of a scarlatinal character. On Dec. 15th another son, aged nine years and a half, was laid up with the fever, and to-day I find him covered from head to foot with a brilliantly red rash, not distinguishable from that of scarlatina. His temperature this morning was 102°, with a soft pulse of 96. For his age, there is the marked slowness of the pulse, compared with the high temperature, which we find in most of our cases of this fever. The tongue was clean, and the *morale* of the patient excellent.

The nomenclature of the disease I shall leave in the hands of those more experienced in Eastern diseases; but it certainly corresponds in every respect to the descriptions of dengue, which I have read in books, and also to the description given in a manuscript report of the dengue epidemic in Egypt of 1880.—I am, Sirs, yours truly,

Alexandria, Dec. 19th, 1887. THOMAS G. PATERSON.

HÆMORRHAGE IN MYXŒDEMA.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Dec. 31st, 1887, I notice a letter from Mr. Oscar Sheiswell, in which the following question is put: "Have we yet obtained sufficient evidence to place hæmorrhage amongst the symptoms of myxœdema?" Possibly in this connexion the subjoined few short notes of a case may be worth recording. The expressions in inverted commas are the patient's own.

S. D——, aged thirty-four, married; three children living, four dead. She dates her illness from a period two years ago, three months after the birth of her last child, when she suffered badly from toothache. "People said she was going dropsy." The change first appeared in the eyelids, and afterwards "the skin pulled on the face, which felt like to burst." At this time she brought up blood with cough, and "her friends said she was making a blumble in her talking."

At the present time (Nov. 16th, 1887) her face exhibits the typical myxœdematous appearance, there is a dryness and roughness of the skin of the hands and arms, and she says the skin of the body is similar. For the last twelve months she has had a "bad salty taste" in the mouth. Her talking improves at times, but is getting worse, and there is a decided tendency to scanning. She becomes very yellow sometimes. The eyelids are thickened; cheeks anæmic, with a pink flush, and soft to the touch. A short time ago "her cheeks were hard for a fortnight." Lips thickened. Six weeks ago she spat up blood with cough. There is vertical headache and giddiness, but no fits. Great listlessness. Her periods are regular in appearance, but *there is too much*. Bowels regular. Teeth short, bad, and edges uneven.

This case, although very inadequately reported, serves to add another to the list of cases of myxœdema with hæmorrhagic tendencies, the bleeding here occurring probably from the lungs and, at the menstrual period, the uterus.

I am, Sirs, yours faithfully,

Wednesbury, Jan. 2nd, 1888. W. H. HAW, M.R.C.S., L.S.A.

THE HYDROPHOBIC VIRUS DESTROYER.

To the Editors of THE LANCET.

SIRS,—Apropos to Dr. McCall's suggestion, will you allow me to call your readers' attention to the fact that I some years ago advised the adoption of a similar expedient in cases of snake-bite. My idea was to use sticks composed of permanganate of potash, in pencils similar to the ink pencil with which everyone is familar. It is well known that the poisonous properties of the venom are instantly destroyed by contact with the drug, and I thought that if such pencils were carried habitually in the pocket and thrust into the wound instantly in case of accident, many lives might be saved. As Dr. McCall justly remarks, the composition of the hydrophobic virus destroyer is not the chief point, its speedy application is the great desideratum; and, bearing this in mind, I would suggest—seeing that various other and comparatively innocuous antidotes are effectual in dog-bite—that the popular remedy should be some other than corrosive sublimate, as it appears to me there might be considerable risk of poisoning, both from

accident and design, if such a dangerous remedy were carried in lozenges or sticks, in two-grain doses, in the pockets of every policeman.

I am, Sirs, yours faithfully,

Jan. 2nd, 1888. C. BELL TAYLOR, F.R.C.S., M.D. Edin.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

To the Editors of THE LANCET.

SIRS,—By desire of the Council I write to ask you to allow me to state that the annual report of the Poor-law Medical Officers' Association having been issued, showing the continued prosperity of the Association, the Council strongly advises all district medical officers who are not members to enrol themselves, as certain important questions seriously affecting their interests are likely to engage the attention of Parliament at an early date.

I am, Sirs, yours truly,

Bolt-court, Fleet-street, Jan. 4th, 1888. J. WICKHAM BARNES.

THE SANITATION OF FLORENCE.

(From our Special Correspondent.)

Florence, Nov. 1887.

IT would not be correct to describe Florence as a health resort. For pleasure and for educational purposes the winter season offers many attractions, but there are cold winds from the north, and the snow falls generally twice in the year, though it melts on reaching the ground. Persons with delicate chests and throats cannot be recommended to winter here; but, on the other hand, those who are suffering from debility, anæmia, digestive trouble, nervous diseases, &c., would benefit from the sunshine and the bracing qualities of the climate of Florence. Such, at least, is the opinion of experienced local practitioners. According to the official reports, the mean annual temperature of Florence, calculated from the years 1866 to 1884, was 14·5° C. (58° F.) In January the mean was 5°; in July 24·9°. The relative annual humidity was equal to 62. In July it was only 46, and in December it rose to 75. With respect to rainfall, the average is taken for the years 1832 to 1884. During this long period it rained on 107 days in the year, and the medium rainfall was equal to 904·7 millimetres. In July 30·8, and in November 115·2, millimetres of rain fell. On an average snow falls four days in the year, and once there was rain consecutively for twenty-three days. The dominant winds are north-east and south-west. It cannot be said that any disease is especially prevalent in Florence. According to official Italian statistics, the proportion out of 100 deaths due to tuberculosis is put down at 21·8 at San Remo, where, of course, a great number of consumptive patients congregate; 14·3 at Venice; 12·2 at Rome; and 10·3 at Genoa. In Florence the proportion is rather high—namely, 15·1 per 100 deaths. Perhaps it is not sufficiently understood that, though Florence is an attractive town for a winter residence, it is not suited to every case of chest disease.

Concerning the general death-rate of Florence, the authorities have ceased publishing the annual returns. The figures compared so unfavourably with the statistics of English towns that their publication was thought likely to injure the trade of Florence. In speaking of this question with respect to Venice, the unfairness of comparing English with Italian statistics, so far as they affected English visitors, has already been pointed out. The proportion of deaths among the English and American visitors to such a town as Florence must be very much below that of the native population; for foreigners live in better houses in better quarters of the town, and during the whole of life have been much better fed than the native Italian. Also there is a larger proportion of deaths at the public institutions than, for instance, in London. The proportion at Florence is, however, a little lower than that at Venice. In the years 1881 to 1883 it amounted to 351 deaths out of 1000; in 1883 to 365, and in 1884 to 349. At Venice, and for the same years, the figures were respectively 380, 383, and 373. In London, in 1883, the proportion was 205·5; and in Paris, 274·4 in 1882. The death-rate for Florence in 1884 is set down at 28·31, or 27·46, according to the varying estimate of the population in the town at the time. Without entering into precise details as to figures, the death-rate is undoubtedly high; and, all things considered, it could not very well be otherwise. On the other hand, Florence has been much more fortunate than Venice in escaping from cholera; but in 1872 there was a severe epidemic of diphtheria, which caused many victims; and very recently an epidemic of small-pox prevailed in one of the poorer quarters of the town.

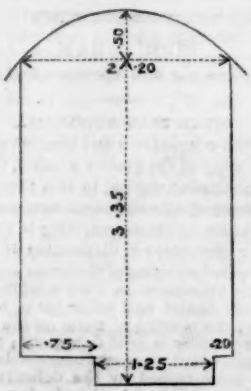
Taking all these circumstances together, even if viewed in the most favourable light, they seem to indicate that there is need of considerable sanitary improvement. Indeed, this fact is widely recognised, and one step at least has been taken in this direction. Florence now possesses a good water supply. Formerly the water drank was derived from the river Arno or from the numerous wells that are to be found in the back yards and gardens of the houses. Now, at a distance of 1570 metres from the town, eight artesian wells have been dug. They are situated at the end of an old gallery where the Arno water used to be filtered. Three reservoirs, one to the south, the others to the north and north-west of the town, are filled, by means of a steam pump, with the water derived from the artesian wells. From the reservoirs, and by the force of gravitation, each floor of the houses in the town could be supplied with pure water. Unfortunately pipes are not yet laid down in all the streets, and even where they exist many proprietors refuse to avail themselves of this advantage. Many inhabitants still continue to drink the water from their private wells and supply their tenants with the same. This is a matter which English visitors must themselves take in hand. No house or apartment should be hired unless there is a written agreement that the town water supply alone shall be provided. It is only by bringing such pressure to bear upon ignorant landlords that they will be finally induced to do their duty in this respect. Where, however, apartments have been secured, the water should at once be submitted to Nessler's test. It cannot be expected that every tenant will make a quantitative analysis of the water he is about to drink; but he can take a small bottle to the English chemist, who for a trivial fee will apply Nessler's test. Should the presence of ammonia in the water be thus demonstrated, the tenant should at once apply to the municipality. The authorities must then either close the well or make a more elaborate analysis of the water, and prove, if that be possible, its purity. If, however, any delay arises, then the person aggrieved should write to the English press, and give the largest possible publicity to the fact that the authorities allow water to be used for drinking purposes which shows a yellow reaction when Nessler's test is applied. Should a few English or American visitors determine thus to take their own interests in hand, the recalcitrant landlords of Florence would soon awaken from the indifference due to ignorance and the natural inertness of the southern character.

Reform with respect to drainage could not be brought about so easily. The Italian authorities are now fully convinced as to the necessity of a pure supply of drinking water, but they are still quite ignorant as to the fundamental principles of drainage. It suffices to say, in proof of this assertion, that there is no rule whatsoever governing the construction of closets. These may be built anywhere and anyhow; no sort of supervision is exercised. The idea that a soil pipe should be trapped has not yet dawned on the mind either of the Florence authorities or of the ordinary landlord. Here and there English families have, through their influence, caused proper waterclosets to be built; but this is done to satisfy the "fads" or "eccentricities" of foreigners, and has not yet become a recognised custom among the native population. Florence, like Paris, suffers from the defects of a multiplicity of systems, while it does not enjoy the advantages of any system. There are cesspools, sewers, and movable *tinettes* or pails. The advantage of the cesspool system is that the sewers are not contaminated by the night-soil; but, in Florence, as the cesspools are allowed to overflow into the sewers, the latter are just as foul as if the closets drained direct into them. The pail system is much preferable to the cesspools, as the foul contents are removed more frequently. But in Florence the pails, instead of being placed immediately underneath the closet seats, are affixed to long soil pipes. Of course it is impossible to use water in the soil pipe, as it would fill the pail. Therefore one of two evils must be endured: either the soil pipe must be in a perpetual state of foulness, or the pail, like the Paris

tinette, must have an overflow into the sewer. In the latter case there is no reason why the drainage should not at once go into the sewer.

Some of the most important sewers of Florence are, however, absolutely unsuited for anything of a more dangerous character than mere rain water or surface drainage. Many of them have perfectly flat inverts with a fall of only 2 to 4 in the 1000, and no means of flushing. A portion of the main sewers was built about thirty years ago, and is very defective. The Santa Apollonia sewer (Fig. 1), for instance, has a flat invert with no less than four right angles. First there is a ledge 75 centimetres broad; then a square

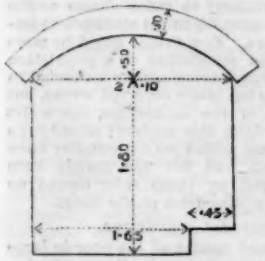
FIG. 1.



Sewer of the Via Santa Apollonia.

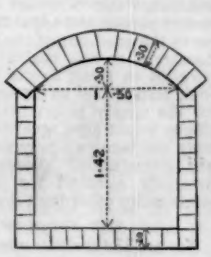
channel 1·25 centimetre broad, and about 30 centimetres deep; and on the other side of this channel there is another ledge 20 centimetres broad. Altogether the width of this sewer is 2 metres 20 centimetres, or about seven feet and a half. It is 3·35 metres high, with a domed roof 50 centimetres in the centre of the arch. When we consider that there are not 200,000 inhabitants in Florence, and that this is only one out of three main sewers, its exaggerated proportions are obvious. Such a sewer, with its four angles and flat invert, together with the slowness of the current and the absence of proper flushing, can only be kept clean by manual labour. In the Lung Arno, Corsini (Fig. 2), the other main sewer has only

FIG. 2.



Sewer of the Lung Arno, Corsini.

FIG. 3.



Sewer in the Via Bardi.

one ledge 45 centimetres broad, running by a channel 1·65 centimetres broad, thus forming only three angles instead of four. This sewer is 2·10 metres wide, 1·80 metre high, and the centre of the arch covers 40 centimetres more. In this case the invert is also absolutely flat, and with the one ledge presents three right angles to augment the friction of the water. Finally, there is the sewer in the Via Bardi (Fig. 3), which should be mentioned as especially defective. This is a comparatively small sewer. It measures 1·42 metre in height, with 33 centimetres for the arch of the roof. There is no ledge, but a plain flat invert 1·50 m. broad. Thus the sewage travels along, forming a flat, shallow ribbon of about five feet in width. It is needless to say that here also the sewer cannot be described as self-cleansing. In the smaller streets the old sewers are generally 60 centimetres, or two feet, in height—much too large to be self-cleansing, and too small to admit of the passage of a man to clean them. The newer sewers in the minor streets are egg-shaped and measure one metre in height, so that a man could pass along them; but, being egg-shaped and possessing no angles to cause friction, they are much less likely to require cleaning by hand. According to the information courteously supplied by the town engineer, the fall in these sewers varies from 2 to 4 per 1000. The big sewers of Florence measure, in all, about 10 kilometres in length, and there are ten or twelve men employed by the municipality to clean them. It has been publicly stated, in answer to attacks on the sanitation of Florence, that the sewers are flushed. Twice or three times in the course of the year the reservoirs that contain the drinking-water supply are emptied and cleaned. The store of water is then discharged into the sewers, and this makes a flush, it is said, of some 30,000 cubic metres. Apart from this, when dry weather has prevailed for some time, or there is any special reason to believe the sewers require flushing, the engine used to pump up the drinking water from the artesian wells to the reservoirs can be made to raise water from the river Arno and discharge it into the sewers. This method of flushing is employed about twenty times in the course of the year. It is necessary, however, to observe that, so as not to interfere with the supply of drinking water, this operation can only be performed at night. Now at night the doors and windows of the houses are shut and the inmates are asleep. The sudden rush of water into the sewers disturbs the large accumulation of sewer air compresses it and forces it up into the houses through the untrapped waste water and other pipes. Thus we have an extra volume of sewer air entering the houses at the very moment when the inhabitants, being asleep in unventilated rooms, are least able to cope with the danger.

This brings us back to the question of house drainage. Considering the straitened circumstances of Italian finances generally, and particularly of the town of Florence, which has ceased to be the capital of United Italy, it would not be practical to demand the immediate reconstruction of the main sewers. But there is no reason why municipal bye-laws should not at once be issued to regulate the drainage of the interior of the houses. That the sewers should give off offensive odours and remain insufficiently cleansed and insufficiently flushed would be comparatively a tolerable evil if the sewer air were rigorously excluded from entering the inside of the houses. The ordinary closets consist of marble seats. There is, as a rule, no valve to the pan. It leads to a nine-inch earthenware pipe of very inferior quality, which is generally surrounded by rough masonry. There is no water, no trap, and the pipe goes straight down to the cesspool, and serves as the principal ventilator for the cesspool. In the course of time the earthenware pipe breaks away, and then there remains but the rough and porous masonry, to which the soil adheres, infecting the surrounding walls. Though a seat, made of plaited straw, is often provided to put on the marble of these closets, they are rarely used in that manner, and consequently the floor is generally wet. When the closet seat is closed with the neatly-fitting marble slab provided for this purpose the foul gases are not excluded. On the level of the floor, in front of the seat, a hole, two inches in diameter, is drilled through the marble to let the wet from the floor flow away into the soil pipe. This hole of course is never closed and never trapped, and through this aperture the foul gases have free access into the apartments. Such, in palaces as well as in poorer houses, is the condition and structure of the closets in Florence. Of course, as already stated, in certain houses, hotels, and boarding houses, English watercloseta have been introduced; but these are the exception. These are contrivances that do not govern the health of Florence, though they may be useful in saving a few individual visitors.

A great deal more could be said on these subjects, for there still remains much to criticise. To keep in the domain of what is immediately practical, however, all who are interested in the welfare of Florence should urge upon the authorities the necessity of at once laying down the pipes in all the streets where the new water supply is not yet provided. Wherever the town water supply exists, the old wells, situated very frequently side

by side with the cesspools, ought to be closed. Then a system of house-to-house visitation should be instituted, and every pipe or drain leading to a sewer or a cesspool should be trapped. None of this work ought to be left to the good will or initiative of the persons concerned. It can only be accomplished by the strong arm of the law, with the assistance of inspectors possessing the necessary technical knowledge. These cannot be found in Italy; they must be sought for in the United States of America, in England, in Brussels, and in a few German towns. This latter suggestion will not probably commend itself to the municipal authorities. Vast schemes entailing much greater expense are likely to be adopted in preference; yet it is difficult to insist too forcibly on the fact that hygiene commences at home, and that, especially with such barbaric contrivances as the closets of Florence, it is much more urgent to put the house drains in order than to reconstruct the street sewers.

MANCHESTER.

(From our own Correspondent.)

OWENS COLLEGE, CHAIR OF OBSTETRICS.

THERE is again about to be a vacancy in the Chair of Obstetrics in the College. On the death of the late Dr. Thornburn, who for many years was Professor in the Faculty of Medicine and Obstetric Physician to the Infirmary, Dr. Cullingworth was appointed to the professorship, whilst Dr. Lloyd Roberts succeeded to the post of Obstetric Physician to the Infirmary. It is now announced that, owing to the probable acceptance by Dr. Cullingworth of the post of Obstetric Physician to St. Thomas's Hospital, London, the above-mentioned vacancy will shortly occur, and already some speculation is abroad as to who will succeed him. The two foremost names amongst local men are Dr. Lloyd Roberts and Dr. Sinclair; the latter has for some time been doing good work at the Southern Hospital, and is well known as a gynæcologist in the district. In the hands of either the interests of the College and the students will be safe. Dr. Cullingworth's departure will be regretted by all, by the profession at large as well as by the students, with whom he is one of our most popular lecturers. His work, too, in connexion with the Medical Society and the library has been of great value and usefulness, and here too he will be much missed.

SALFORD ROYAL HOSPITAL.

At the annual meeting of this charity a fairly satisfactory balance sheet was presented. The ordinary expenditure for the year had amounted to £4486, whilst the ordinary income, exclusive of one or two legacies, amounted to £4323. The work of alteration and enlargement, which has so long been in progress, is now practically completed, and many of the new wards &c. are in use. The hospital now has accommodation for 120 beds, and has thus become qualified to be recognised as a teaching institution for the clinical instruction of medical students. On Thursday last a large number of the subscribers and friends of the hospital met there in a kindly festive manner; the wards have been very prettily decorated, Christmas trees were provided for the inmates, and a large number of useful presents were distributed to the patients and nursing staff. The Children's Hospital, the Clinical, the Eye Hospital, &c. have all provided some extra amusements, for their respective inmates this holiday season, but our chief and largest charity, the Royal Infirmary, following the custom of the past few years, has done but little in this direction for the patients within its walls. The old Eye Hospital in St. John-street has undergone a considerable alteration internally, and is now utilised as an out-patient department, thus saving patients, and especially those from the opposite side of the city, the necessity of making a long journey down Oxford-road.

JUBILEE EXHIBITION.

Our fine Jubilee Exhibition at Old Trafford has now become a thing of the past, and is rapidly being demolished. Mr. de Jong, who was appointed resident medical officer soon after its opening day, had a considerable number of patients during the six months it remained open, the total number being 751, of whom nearly 200 were visitors, the remainder being *employés*, attendants, and others. Twenty-two cases of burns and scalds occurred, five fractures, and three dislocations. There were three cases which terminated fatally: one a woman, who was killed by the falling of a granite column; one a lady, an epileptic; and the third was Mr. Mead, the superintendent of the exhibits, who died from intussusception of the bowels.

PRESENTATION TO CHAIRMAN OF HEALTH COMMITTEE.

It was recorded here a few weeks ago that Mr. Alderman Schofield had been entertained at a public banquet by his fellow-citizens, to show their respect for him and appreciation of his work in connexion with the Health Department of the Corporation. A presentation of a service of handsome silver plate, now on view at Messrs. Elkington's, is shortly to be made to him, "in recognition of his valuable public services and personal worth."

BIRMINGHAM.

(From our own Correspondent.)

STEAM TRAM NUISANCES.

WHATEVER the convenience and comfort of this mode of travelling may bring to the greater number, there can be no doubt that, as at present worked in this town, steam trams are subject to many abuses and much annoyance. There has lately been an active agitation, resulting in the formation of a society for the prevention or diminution of the nuisances arising from the bad working of the trams and engines. The complaints made are numerous. They comprise the emission of steam from the funnel and other parts, which tends to frighten horses; the pouring of water on the lines of rails, which in frosty weather is most dangerous; the emission of sulphurous fumes, which are most disagreeable and dangerous to health; the noise caused by the defective engines, and from the small steel wheels; the ringing of bells, often unnecessarily; and the unwieldy and ugly appearance of the whole machine. It is also alleged that there is considerable depreciation of property along the lines of route. This is surely a sufficient category of evils for any association to cope with. Granting that the necessity for cheap travelling has arisen, it is also a duty to see that as far as possible this should be conducted with health and safety, and that a monopoly should not be accorded to the demon steam tram without some equivalent protection for those who suffer from the abuses which have evolved a righteous and timely protest from a large section of the public.

MAN'S INHUMANITY TO MAN.

Instances of shocking neglect and gross depravity are so numerous in the midst of our highly civilised communities that the record of them meets the fate of an oft-told tale and ceases to attract attention. Yet such examples as are sometimes met with are sufficient to cause shame to the veriest savage, and appal the moralist in his attempts to improve the condition of the race. Few things could be more disastrous to the health and sensibilites of a population crowded in small courts than leaving a body unburied in their midst. Yet an instance has lately occurred where, but for the timely intervention of the authorities, the worst effects would have occurred from this neglect; already the body had become a prey to rats, which would probably have had unrestrained possession had not the corpse been promptly removed for burial by those who owned no relationship other than that arising from public duty.

THE ABUSE OF MEDICAL CHARITIES.

Nor are the thriftlessness and apathy of the poor in large towns more prominently exhibited than in this particular. Cases of illness are allowed to drift into conditions of helplessness, and often hopelessness, from want of prompt aid. At the last moment they are taken to the hospitals, or a dispensary note is obtained at an unreasonable hour, or the services of the parish doctor are called for the purpose of testifying to the dissolution rather than to save life and suffering. The coroner's court is the scene where these differences are often settled, and "Death from natural causes" is the verdict, which carries but poor consolation to the victims of distress and disease.

"DANISH MIXTURE."

Under this somewhat singular title is sold a compound which possesses properties allied to those of butter. The

new Act which came into operation on the 1st of this month will afford means of testing the properties of this and similar mixtures. Precautions are occuring on every side, and the advice of a well-known advertisement when asking for a certain article—"Be sure you get it!"—cannot be too strongly impressed upon householders.

Birmingham, Jan. 4th.

LIVERPOOL.

(From our own Correspondent.)

HEALTH OF LIVERPOOL.

THE number of cases of scarlatina have diminished, and what threatened to be a very serious epidemic has so far been averted. The short distance from, and frequent communication with, Sheffield, renders great watchfulness on the part of the sanitary officers necessary, but it is hoped that by timely isolation of any cases which may present themselves any serious spread of small-pox may be prevented. It has been calculated that there are at the present time about 40,000 unvaccinated persons in Liverpool; and while this is a large number in itself, it is a very small proportion of the total population. On the whole the vaccination, both public and private, is very efficiently performed.

DEATH FROM ATTENDING A FUNERAL.

The death of Mr. William D. Holt, a leading citizen of Liverpool, has again called attention to the risks incurred by attending funerals. The deceased, who was a little over sixty years of age, attended the funeral of a friend who was a member of the Presbyterian church, and whose obsequies were somewhat prolonged. Mr. Holt, who stood on the damp clay and bareheaded for a considerable time, took a chill which was fatal to him, as he was taken ill soon after and died within a fortnight. His relatives, with a consideration which reflected the greatest credit upon them, made a request that the service at the grave should be as short as possible, and that all who attended should be requested to keep their hats on.

HOSPITAL SUNDAY.

Next Sunday will be the eighteenth anniversary of Hospital Sunday in Liverpool, the date being coincidentally that of the first Hospital Sunday in 1871. The preparations for it are of a very complete character, due notice being given in all the churches and chapels where collections are to be made, and papers giving full particulars of all the medical charities selected for participation in the funds being liberally distributed among the congregations. The local papers have always heartily supported the movement, and leading articles generally appear a day or two before urging the liberal support of the public. As there has been a decided improvement of late in trade and commerce, it is believed that this will be shown in the increased amount collected.

NARROW ESCAPE FROM ALCOHOLIC POISONING.

Late on the evening of the 2nd inst. a man was found insensible in the streets by a policeman, who removed him on an ambulance to the bridewell. Here the bridewell keeper, seeing the serious nature of the case, sent him on to the Royal Southern Hospital, where he was found by the resident surgeon on duty to be suffering from alcoholic poisoning. The stomach pump was used and a quantity of liquid smelling strongly of rum was removed, the man being subsequently conveyed to one of the wards, where he now remains. Had the case not been promptly dealt with the result must have been fatal.

Liverpool, Jan. 3rd.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

AMBULANCE WORK IN THE NORTHERN COUNTIES.

I HAVE been prevented by the press of many other matters from referring fully to the great impetus ambulance work has received about here of late. Much of this has been due to the very energetic work of Surgeon-Major Hutton, late of the Rifle Brigade, who was detailed for the duty of instruction by the St. John Ambulance Association. He has held a very successful series of meetings at our various Durham coal mines. Mr. Hutton's tour has lasted forty-two days, during which he has addressed twenty-five public meetings, and formed a large number of classes to receive instruction as how to render "first aid" in case of accident, and to use properly the stretchers and other apparatus which the Mines Regulation Act of last session requires to be kept in readiness. Mr. Hutton is a ready speaker and teacher, and his experience of mining accidents before he entered the army has proved of the greatest value in connexion with the work. The subject is about to receive greater significance in Newcastle, where the Mayor is about to hold a public meeting to promote ambulance work and instruction. I believe, however, that Newcastle as a centre of ambulance work is pretty well to the fore, owing to the long-continued labours of the following surgeons, who did much rough and preparatory work before it became so popular as it is now. When the history of the ambulance movement in and about Newcastle comes to be written the following names, as well as others, should not be forgotten. Dr. R. F. Cook of Gateshead, Dr. Mears of Tynemouth, and Drs. Clark, Newton, May, and Wear of Newcastle. Mr. Jeaffreson also, in his own specialty, has been giving some interesting demonstrations upon "first aid" to those suffering from injuries to the foremen and leading workmen at some of our large chemical works upon the Tyne. Chemical workers run special risks to sight from the nature of the material used, such as caustic soda, lime, sulphuric acid, &c.

NEW HOSPITAL AT BLYTH.

There was a lively time last week at the ancient Northumbrian port of Blyth when the new hospital (to be called after Thomas Knight, a shipowner, who resided there for many years) was opened by Lady Ridley amid much rejoicing. I believe the hospital was endowed by Mr. Knight's widow, but the building had to be provided by the public, the site having been generously given by Sir M. W. Ridley. The hospital is most complete as a building, and was described by me in some former letter to you. Dr. Ward of Blyth has done much of the arduous work necessary to raise the funds for it.

Newcastle-on-Tyne, Jan. 4th.

EDINBURGH.

(From our own Correspondent.)

THE UNIVERSITY.

A REVIEW of the position of the University at the end of this year is fraught with considerable reason for congratulation and encouragement for all those most interested in its progress and welfare. The annual statistics have just come to hand, and show that in the past year 3459 students have entered the University. Of these about 1800 are students of medicine, the remainder being distributed in the Faculties of Arts, Law, and Divinity. These numbers show an increase of nearly 1000 undergraduates in the last ten years; and further analysis shows this increase to be chiefly due to the great development that has taken place in the medical school. This prosperity as regards the numbers attracted to the University, though highly encouraging to all the teachers engaged in carrying on medical education here, is by no means an unmixed advantage. The crowded state of the school renders the student's life an arduous one; as he strives to attain a distinguished place among his fellows he encounters a competition so keen as to make one question whether his hard-won honours have not been too dearly bought in many cases. For the same reason the burden laid upon the teachers is a very heavy one. It is only by the strict and systematic observance of arrangements intended to utilise their time to the utmost, and to prevent the overlapping of important classes, that they can overtake the great amount of work that opens up before them in coming in contact with such large bodies of students; and it is satisfactory to note that much has been done to obviate the difficulties that present themselves in this respect by informal conferences between teachers and students, and the subdivision of the latter into groups of such size and with such hours of meeting as render their thorough practical instruction a possibility. It is, of course, in the clinical branches only that these difficulties exist. In

the systematic classes, spacious lecture-rooms, complete arrangements for class demonstrations, and for the illustration of various details objectively, render the mere number of students attending of little moment, since all can hear and see perfectly. But on approaching clinical work the conditions are very different and much more organisation is necessary. In this matter the students are now as thoroughly alive to their interests as the teachers are anxious to assist in conserving them; and it is satisfactory to note that a local commission, consisting of delegates from the teaching bodies and from the students, is about to meet, with a view to further improvements in the system of clinical teaching. This cordial co-operation on all hands for a common end is one of the most encouraging symptoms of the present state of the school, and is felt here to give a sure promise of still further progress.

THE ROYAL INFIRMARY.

At the annual meeting of subscribers held a few days ago, it was announced that 8823 in-patients had been treated in the last twelve months, of whom 4037 left cured, 2911 relieved, 658 dismissed on other grounds, and 567 died. The out-patients treated during the year exceeded 25,000. An increase is reported in the income of the institution, which is entirely derived from voluntary contributions.

THE EDINBURGH ROYAL ASYLUM.

The managers have resolved to make an important addition to their accommodation for patients of the wealthier class, by erecting a new asylum on the Craig House Estate, at a cost of £60,000. This estate occupies the summit and sloping sides of a richly wooded hill, overhanging the large establishment already existing at Morningside, and no more healthy and pleasant side could have been selected for the new buildings. The plans are to be prepared by Mr. Sydney Mitchell, who, in conjunction with Dr. Clouston, the medical superintendent, will doubtless produce something bright and pleasing, in consonance with the well-known views of the latter gentleman, on the effects of colour and brightness in the treatment of insanity.

THE LATE PROFESSOR DICKSON.

The unexpected news of Dr. Dickson's sudden death last week has caused a widespread feeling of regret in Edinburgh. Up to the very last he was full of brightness and good spirits, and at the time of his sudden seizure with syncope, which proved fatal, he was engaged in out-door exercise on his estate in Peeblesshire. His loss will be deeply felt in the social no less than in the scientific circle, in both of which he was a much-prized coadjutor. He has occupied the chair of Botany in the University since the retirement of the late Professor Balfour in 1879.

Edinburgh, Jan. 3rd.

ABERDEEN.

(From our own Correspondent.)

THE ROYAL INFIRMARY.

A GENERAL MEETING of the managers of the Aberdeen Royal Infirmary was held on Thursday, Dec. 29th, when the new regulations for the management of the institution and the Lunatic Asylum were under consideration. In future the infirmary is to be managed by a board of nine directors, elected by the managers. At the end of every alternate year three directors must retire. This ensures rotation and permits of each director holding office for six years. At the same meeting the Plans Committee submitted a report as to what had been done in connexion with the proposed extension of the infirmary buildings. In their report they say that "they regret much the delay which has occurred in the preparation of the working plans, but the committee have been assured both by the London and local architects that everything possible has been done to expedite them. Some further time must elapse before the specifications and scheduling are completed, but the Plans Committee hope that the directors may soon be in a position to take in estimates." General regret was expressed at the delay, especially seeing that the public had responded so liberally to the appeal for funds.

HOSPITAL SUNDAY.

On Sunday, the first day of the year, the usual annual collections were made on behalf of the Aberdeen Royal Infirmary. In a circular sent to the clergymen asking them to bring before their congregations the strong claim the infirmary has on the public for support, the treasurer gives an abstract of the number of patients received into and dismissed from the infirmary between Jan. 1st and Dec. 22nd, 1887. On Jan. 1st there were 173 patients in the hospital: up to Dec. 22nd 1800 had been admitted—making a total of 1973. Of that number there were cured, 855; improved, 597; unfit, dismissed at desire, &c., 233; and there were 111 deaths. On Dec. 22nd there remained in the hospital 177 patients. Besides those in-patients over 1000 persons had the benefit of advice and medicine as out-patients. While these figures bear testimony to the great benefit the institution is to the community, it is also pointed out that unfortunately the means placed at the disposal of the managers have for several years been inadequate to meet the necessary annual expenditure. An earnest hope was therefore expressed that the church collections for the current maintenance of the hospital would on the present occasion be on a liberal scale. The answer to this appeal is the collection of a sum amounting to £705 4*s.* 0½*d.*, as compared with £717 9*s.* 2½*d.* at the same date last year, and £660 13*s.* 6½*d.* in 1886.

THE VACANT MEDICAL OFFICERSHIP OF HEALTH.

It is announced that Dr. James Neil is a candidate for the appointment of medical officer of health for Aberdeen. Dr. Neil is a graduate of this University, and, although since graduating he has chiefly devoted himself to the study of insanity, he has also studied sanitary science in the hygienic laboratory at University College, London.

Aberdeen, Jan. 3rd.

DUBLIN.

(From our own Correspondent.)

THE EPIDEMIC OF MEASLES NEAR SKIBBEREEN.

IT is satisfactory to learn that Baltimore and the surrounding district are now quite free from the recent outbreak of measles. In Hare Island also, with few exceptions, all the patients attacked are now recovered; but the disease still exists in parts of Aughadown, especially in Kilkilleen, Lisbeen, &c. In Cape Clear another death in an adult has taken place. The case was that of a woman who had a temperature of 106° for the first twenty-four hours, when a profuse rash of raised copper-coloured patches, covered with little postules, appeared all over the body. On the fifth day she died, the temperature never falling below 104°. There are at present six dangerously ill of 100 persons attacked. Dr. Jennings, who resides on the island and has served in the Navy, states that the epidemic is as severe a form of sickness and as pestilential as any tropical disease he ever saw.

THE CORK POISONING CASE.

The statement that Cross had confessed his crime is, to say the least, premature, for he and his friends are preparing a petition to the authorities for a mitigation of his death sentence. At the recent trial circumstantial and other evidence was complete, and there are very few indeed who can deny that the verdict of the jury has been thoroughly deserved. A more cold-blooded murder it has never been my lot to chronicle, and the sympathy shown by a very few people who believe Cross innocent is surely wasted on such a man.

SMALL-POX IN DUBLIN.

There are only four small-pox patients in Cork-street Fever Hospital, who are all convalescent. In the Hardwicke Fever Hospital there is not a single case, and none has occurred in the city for the past thirty-three days. The citizens may be congratulated on the result, as the disease may virtually be said to have been stamped out, and only one death, that of an unvaccinated infant, has occurred from the recent outbreak. At Dr. Mapother's suggestion, the Local Government Board have directed the medical officers of the various dispensary districts to extend the system of vaccination as much as possible in all cases, not only at the dispensaries but at the houses of the patients.

THE DEATH-RATE OF DUBLIN.

The Public Health Committee of the Corporation has decided to ask the district medical officer of health to meet

the committee in conference with Sir Charles Cameron and Dr. Burke, medical inspector to the Local Government Board, on the subject of the high death-rate, with the view of devising measures for reducing it, and taking such suitable action as, in the opinion of the meeting, would appear to be calculated to achieve that result.

DEATH FROM NEURALGIA.

Neuralgia, although one of the most painful maladies that the human race suffers from, has seldom been known to have proved fatal. A case, however, which occurred recently near Coagh, in the north of Ireland, would appear to have proved an exception. A lady suffered from neuralgia for forty days without any intermission of the pain, and it is alleged that she obtained no sleep during that lengthened period, although every means that medical skill could suggest were tried without effect. That the patient obtained no sleep for forty days is contrary to all physiological laws; but probably what sleep the unfortunate lady obtained was very trifling and inadequate, and it is most likely that death was due to the exhaustion occasioned thereby.

MERCER'S HOSPITAL, DUBLIN.

It is rumoured that a subscription list will shortly be started to reimburse Mr. O'Grady for the expenses incurred by him in the litigation connected with the charge brought against him as senior surgeon of this institution.

Her Excellency the Marchioness of Londonderry, with kind thoughtfulness, has sent presents of Christmas cards, accompanied by suitable toys, to the children in the various Dublin Hospitals.

Dublin, Jan. 3rd.

BELFAST.

(From our own Correspondent.)

ACCOMMODATION FOR SMALL-POX PATIENTS IN DERRY.

DURING the recent epidemic of small-pox the patients were treated in the fever wards of the county infirmary, but the governors having refused to admit any such cases in the future, a meeting of the guardians was held on Saturday to consider a report presented from a committee appointed to look after the accommodation available in the workhouse, in the event of the occurrence of another epidemic of small-pox in Derry. From the report it would seem there are ninety beds available in the workhouse, and that this accommodation might be easily increased. The guardians also supported the fever wards of the infirmary, where the cost per inmate was 13*s.* 1*d.* per week, while it was 8*s.* 5*d.* in similar wards in the workhouse. It seems also that the Sanitary Committee of the Derry Corporation have passed a resolution protesting against the proposal to remove the fever wards from the infirmary to the workhouse, as it is said the respectable artisan class would not enter a hospital in the workhouse grounds. Dr. Wodehouse, medical officer of the Local Government Board, was present, and recommended the erection of a small-pox hospital entirely isolated from the city; he was also in favour of the City Fever Hospital being allowed to remain at the infirmary. No decision was arrived at, and the discussion of the matter was postponed for two weeks.

THE BELFAST NATURAL HISTORY AND PHILOSOPHICAL SOCIETY.

A public lecture, in connexion with the above Society, was delivered in the Ulster Minor Hall on Jan. 2nd, before a crowded audience (which included the Mayor of Belfast, several of the Queen's College professors, and a number of medical men), by Mr. A. W. Hare, F.R.C.S. Ed., of Edinburgh. Mr. Hare selected as his subject—a very interesting one—"Facial Expression," and his lecture, which was well illustrated by means of diagrams projected on a screen, was a complete and thorough success. Those present fully appreciated Mr. Hare's remarkable fluency, his delicate humour, and playful satire.

THE DEATH-RATE OF BELFAST.

From the Registrar-General's returns of the births and deaths for the week ending Dec. 24th, we learn that the death-rate was 41·4 per 1000, while in the three previous weeks the rates had been 37·2, 31·6, and 36·0 respectively. Amongst the deaths from all causes were 13 from measles, 4 from scarlatina, 10 from whooping-cough, 1 from simple continued fever, 1 from enteric fever, and 5 from diarrhœa. During the same period, while there were 178 deaths, there were only 118 births, a very serious condition of matters. I have heard that the high death-rate has been chiefly amongst children and old people. Some think the scarcity of our water supply may be a factor in causing this high mortality, but it is more probable that the sudden, frequent, and excessive changes in the atmosphere have caused this depression in the public health.

HYDROPHOBIA.

The subject of rabies is engaging considerable attention in the north of Ireland at present. On Saturday last a clergyman waited upon the Omagh Board of Guardians and urged them to take some steps for the safety of the people in his district, where great alarm exists, in consequence of a dog suffering from rabies having, in its way through the locality, bitten other dogs. The subject was referred to a committee. A correspondent writing to one of the Belfast papers states that there are many places in Ulster now infested by mad dogs, and he says that in the south-east of Tyrone there are several farmers who have met with serious loss from a number of their young cattle and pigs having become affected with rabies. The writer draws attention to the fact that a considerable number of people profess to have "cures" which prevent either persons or animals bitten from having rabies.

THE MAIN DRAINAGE SCHEME.

At the last meeting of the Town Council a resolution was, after some discussion, carried recommending the Council to direct the necessary steps to be taken so that the works in connexion with the main drainage may be proceeded with with as little delay as possible. The entire cost will, as estimated, be considerably under £300,000.

Belfast, Jan. 3rd.

PARIS.

(From our Paris Correspondent.)

TINEA DECALVANS.

As anticipated, the issue of the debate on tinea decalvans at the Academy of Medicine has not been followed by satisfactory results, for the speakers have not advanced the subject one iota; but all are agreed, including even Dr. Ollivier, who was the most strenuous opponent to the measure, that until something more positive be known as to the nature of the disease, those who are affected with it should be separated from the others. A commission, however, has been appointed to investigate the matter. In the meanwhile the existing regulations should be carried out, which may be summed up in one sentence—isolation of the pupils affected with tinea decalvans; but, instead of exacting the exclusion of the pupils so affected, the Academy has so far conceded to Dr. Ollivier's suggestion that the pupils will be allowed to attend the schools, though under certain restrictions.

M. PASTEUR.

Owing to continued ill-health, M. Pasteur has thought it necessary to offer to resign his post of perpetual secretary to the Academy of Sciences; but as the eminent biologist is held in great esteem, his application has not been granted, and he has been requested to continue in office with a *locum tenens* to do his work.

DEATH OF DR. EUGÈNE DALLY.

I regret to have to report the death of Dr. Eugène Dally, which took place on the 2nd instant, at Etang-la-Ville, whither he had gone for the benefit of his health, which had been failing for some time from diabetes. He was only fifty-four years of age. The deceased gentleman was a distinguished member of the profession, and continued the practice of his father, who was also a physician of repute. He was also an eminent anthropologist, and, in conjunction with Paul Broca, De Quatrefages, and others, founded the Anthropological Society of Paris, of which he was one of its presidents. He was also professor of Ethnology at the School of Anthropology, where he delivered popular lectures, which were well attended by the public. Dr. Dally

was the author of several important works bearing upon orthopædics and ethnology.

POISONING BY COCAINE.

Dr. Mattison of Brooklyn contributes an interesting paper to the last number of the *Tribune Médicale* upon Poisoning by Cocaine. It would seem that Dr. Hammond of New York had expressed the opinion that cocaine was not toxic. To refute this view the author has collected a large number of cases in which alarming symptoms, sometimes terminating fatally, followed the administration of the drug. The most varied manifestations of nervous and mental character are noted, but what appears to be nearly constant is the slowing of the respiration associated with extreme frequency of the pulse. Dr. Mattison concludes that the administration of cocaine is by no means free from danger, and that any accident to which it may give rise should be combated by morphia hypodermically or nitrite of amyl.

THE BRAINS OF CELEBRATED MEN.

At the Société de Psychologie Physiologique M. Manouvrier read a report upon the brain of the late Dr. Bertillon, the eminent statistician, and compared it with the brain of Gambetta, which has been studied by Mathias Duval and Chudzinsky. In weight Gambetta's brain was below the average, only scaling 1290 grammes. That of Bertillon exceeded the usual weight, reaching 1394 grammes. It is now admitted that, other things being equal, the weight of the brain is in proportion to the intelligence of the individual, and, moreover, the greater the intelligence the greater the absolute and relative development of the frontal lobes. A comparison of the brains of Gambetta and of Bertillon shows that the former is smaller, more particularly in the anterior portion, less so posteriorly, and that the temporal region is even larger. Now, the qualities of the two men were diametrically opposite. Gambetta was active and loquacious, Bertillon was reticent and retiring. Although an admirer of oratory, he had always failed as a speaker. In Gambetta's brain the circumvolution of Broca is extremely developed, in Bertillon's it is reduced to its most simple expression. Bertillon was in his youth left-handed, but he became ambidextrous later in life. The third frontal circumvolution on the right side (the speech centre of the left-handed) is larger than the corresponding one on the left side.

Paris, Jan. 4th.

VIENNA.

(*From our own Correspondent.*)

THE HEALTH OF VIENNA.

ACCORDING to the official publications issued recently, the rate of mortality decreased considerably during the years 1885 and 1886. For example, while in the first years of the present century the rate of mortality was as high as 89·4 (in the year 1809), it had been reduced by enforced sanitation to 28·2 in the year 1885 and to 27·2 in the year 1886. The deaths from infectious diseases caused by bad water and imperfect drainage especially have diminished, on account of the introduction of the "Hochquellenwasserleitung," and of the destruction of the old buildings of the most insanitary quarters. The deaths from typhus, which were 640 in the year 1873, were only 61 in 1886. There died in the seven years before the introduction of the "Hochquellen," 587 persons from dysentery, while only 150 deaths were recorded in the seven years following the introduction of the new water. As vaccination is not yet made compulsory, the number of variolous cases is very high indeed. There were 3092 cases of small-pox, with 778 deaths, in 1885, and 794 cases, with 181 deaths, in 1886. Since 1886 the notification of varicella, measles, erysipelas, and puerperal fever has been made compulsory.

A NEW AUSTRIAN MILITARY PHARMACOPŒIA.

It is reported by the Pharmaceutical papers that a commission has been appointed by the Minister of War to prepare a new military Pharmacopœia. A series of new remedies recognised to be effective will be introduced into this new edition.

THE EFFECTS OF THE HYGIENIC CONGRESS.

Since the Hygienic Congress special attention has been paid by the Government to the sanitary condition of the Austrian schools. By a recent order of the department of education, the classical text-books in the gymnasia are to be examined as to their printing, and the use of all badly printed editions is prohibited. A better supervision of the school buildings and the disinfection of them have been provided quite recently. The different Diets of the monarchy were asked by the government to secure the necessary sanitary organisation in their respective provinces.

PHOTOGRAPHY IN HISTOLOGY.

By the use of his electric microscope and of silver bromide plates Prof. Stricker is enabled to get very fine photographs of living bacteria and other moving cells. I recently saw such photographs taken from living white blood-corpuscles with high-power lenses, which showed clearly and distinctly the network-like structure of these bodies.

Vienna, Jan. 3rd.

ROYAL COLLEGE OF SURGEONS.

AT an extraordinary meeting of the Council held at the College on Thursday last, the Minutes of the ordinary Council meeting, held on Dec. 8th last, were read and confirmed.

The Council then proceeded to the consideration of the report of the President and Vice-Presidents on the letter which had been referred to them after it had been read at the last Council meeting. The letter, as will be recollected, forwarded the statement relating to the Supplementary Charter prepared by the Association of Fellows, accompanied by a request to be favoured with any remarks thereon which the Council might have to offer. The consideration of a further letter forwarded by the Lords of the Privy Council for the information of the College, with a printed document purporting to be the report of the statement made by the Association of Members to the Lord President on the subject of the application for the Supplementary Charter, was deferred. The Council, having considered at length and verbally corrected the statement to be sent to the Lords of the Council in reply to the objections raised by the Associations of Fellows and Members, ultimately adopted it, subject to confirmation at the next quarterly meeting on the 12th.

Obituary.

ARTHUR FARRE, M.D., F.R.C.P., F.R.S.

THIS much-esteemed physician and obstetrician died, as we have already announced, at 18, Albert Mansions, on Dec. 17th, at the age of seventy-seven. He came of a long-lived family, and would probably have attained a greater age, but some years ago he had the misfortune to sustain a compound fracture of the leg. The accident was a very severe one, and his recovery at that time was almost despaired of by the surgical friends who attended him; but his great vitality carried him through the crisis, and although he never fully recovered his powers of locomotion, or ventured to resume practice afterwards, yet he was able to take daily drives, to attend the meetings of his insurance board, and to appear at times among his friends again.

The father of Dr. Arthur Farre was Dr. John Richard Farre, who lived in Charterhouse-square, and who wrote some important contributions on the diseases of the heart and liver. Preparations illustrating his observations are still contained in the St. Bartholomew's Hospital Museum. He died in 1862, aged eighty-eight years, leaving two sons, one of them being Dr. Frederick John Farre, so well known quite lately as treasurer of the Royal College of Physicians, and who died at an advanced age in 1886. Dr. Arthur Farre, the younger son, was born in London on March 6th, 1811, and

received his general education at the Charterhouse. On leaving school in 1827 he became a pupil at the Royal London Ophthalmic Hospital, Moorfields, and in the same year a student at St. Bartholomew's Hospital. In 1828 he entered at Caius College, Cambridge, and pursued his medical studies there, returning to London between terms to attend St. Bartholomew's Hospital. At this hospital he was appointed prosector under the famous Mr. Abernethy, for whose lectures on Anatomy and Physiology he prepared the subjects during the last year of that eminent surgeon's tenure of office. He took his M.B. degree at Cambridge in 1833, and in doing so greatly distinguished himself, coming out at the head of the medical list. He proceeded to the degree of M.D. in 1843. Having thus laid the foundation for a brilliant career, he first devoted himself to comparative anatomy, and in 1836 succeeded Professor (now Sir Richard) Owen in the lectureship on that subject at St. Bartholomew's Hospital. Between 1838 and 1840 he lectured on Forensic Medicine, but about this time, having turned his attention to obstetrics, and gained some reputation in that department of practice, he was elected in 1841 Professor of Obstetric Medicine in King's College, and physician-accoucheur to King's College Hospital. He occupied the chair in King's College from 1841 to 1862, when he was succeeded by Dr. Priestley, and in recognition of his long and faithful service he was appointed consulting physician to King's College Hospital, and became Emeritus Professor. He was admitted a Member of the Royal College of Physicians in 1838; was elected a Fellow in 1843; and became a councillor in 1857, acting in this capacity in 1857-8-9, and again in 1869. Twice he was appointed Censor, in 1861-2 and in 1865. He was examiner in 1861-3-4, and Harveian Orator in 1872. He was also Examiner in Midwifery in the Royal College of Surgeons for twenty-four years, but resigned that office in 1875 in consequence of a difference with the Council of the College concerning the propriety of admitting women who were not members of the College to the examination in midwifery. According to the wording of the Medical Act, as interpreted by authority, all who are registered can practise according to their qualification or qualifications as medical practitioners, and the result of granting the midwifery licence to women who were not members would have been to give them the right to register, and so take their rank as medical practitioners, with no other guarantee of competence than that afforded by an examination in midwifery. This Dr. Arthur Farre and his co-examiners, Drs. Barnes and Priestley, regarded as calculated to degrade the practice of midwifery and as contrary to public policy. The Council, nevertheless, persisted in the endeavour to carry out the scheme, and the examiners, feeling themselves unable to take part in it, resigned. The ultimate effect has been that now midwifery is made an integral part of the examination for the membership.

Farre was early recognised as a man of science, and when only twenty-eight years of age was made a Fellow of the Royal Society. He subsequently served on the Council of the Royal Society for two years, and was appointed referee for papers sent in for publication in the Transactions. In 1851-2 he was President of the Royal Microscopical Society, which he assisted in founding. He accepted the post of first hon. secretary to this Society, and gave material help, through the cordial support of the Prince of Wales, in procuring for it its Royal Charter. He contributed many papers to the Transactions of the Royal Microscopical and other learned Societies, and he wrote a contribution on the Anatomy of the Trichina Spiralis, which appeared in the London *Medical Gazette* for December, 1835, illustrated by woodcuts. In this he described the minute anatomy of the parasite, which up to that time was little understood, and he gave very accurately its microscopic appearances. But if Arthur Farre showed himself a proficient in other departments of science, and his cultivation of these widened the basis of his knowledge, it was by his contributions to gynæcological and obstetrical literature, and in his practice as an obstetrical physician, that he was best known in the zenith of his career. His position as Professor of Obstetric Medicine in King's College and the friendship of his predecessor in that chair, Dr. Robert Ferguson (the author of the well-known "Essay on Puerperal Fever"), were important influences in bringing him prominently before the profession and the public as an obstetric physician. But these influences would not have ensured Farre's permanent success had he not possessed the merits and qualities essential to hold the ground. His scientific capabilities, combined with his professional and personal qualities, soon marked him out for pre-eminence in the branch of practice which he had chosen; and although other physicians may have had larger practices, yet Farre eventually came to be regarded as the leading obstetric physician, and the favourite consultant in this department. As the result of this eminence, accorded to him cheerfully and ungrudgingly by his professional brethren, he was appointed Physician-Accoucheur to H.R.H. the Princess of Wales in 1864, and he attended her at the birth of all her children. He was also one of the Physicians-Accoucheur to H.I.H. the Duchess of Edinburgh, to H.R.H. the Princess Christian of Schleswig-Holstein, to H.R.H. the Duchess of Teck, and to the Princess of Leiningen. He likewise attended the late lamented Princess Alice of Hesse-Darmstadt in her first confinement, her Royal Highness having come over to this country for the purpose of being attended by an English physician. As an additional honour he was appointed Physician Extraordinary to the Queen in 1875. In virtue of his seniority and in recognition of his position as leader among English obstetricians, he was, on the death of Sir Charles Locock, made Honorary President of the Obstetrical Society, a post he held until his death. Dr. Farre was, besides, a Fellow of the Royal Medical and Chirurgical and other learned and Medical Societies, and until near the end of his life a member of the Board of Directors of the Clerical, Medical, and General Life Assurance Society. Among his contributions to what may be termed obstetrical literature was a valuable paper on the "Nature of various Substances formed in or discharged from the Uterus and Vagina," published in Dr. Lionel Beale's "Archives of Medicine." But the most important work with which his name is associated, and which will confer upon it enduring fame, is his article on the "Uterus and its Appendages," in Todd and Bowman's "Cyclopædia of Anatomy and Physiology." This article, published in 1868, formed two complete numbers of the Cyclopædia. It is by common accord regarded as the standard authority on that subject, and is extensively quoted by both British and foreign authors. It bears the impress of those early studies in Natural Science which formed Dr. Arthur Farre's early training, and is a model of scientific precision both in its anatomical and physiological details. The drawings of various sections through the uterine walls, of the histology of the uterine mucous membrane before and after the occurrence of pregnancy, the descriptive anatomy and physiology of the Fallopian tubes, the account of the development of the gravid uterus, afford especial proofs of prolonged and careful study. The article is, indeed, a compendium of all that relates to the anatomy, physiology, and pathology of the uterus, together with the changes which the uterus undergoes during pregnancy, brought up to the date when it was written. Throughout the monograph are evidences of conscientious and original research, immense pains being taken to verify observation with the greatest exactitude; and the entire result is a work which has well stood the test of time, and which, so far as its essential features are concerned, requires but slight modification, notwithstanding all the advances of knowledge even at the present time. Another contribution of his, indicating both learning and scientific thought, was his Harveian Oration entitled "An Analysis of Harvey's Exercises on Generation." This was regarded by all who heard it as worthy of the great occasion on which it was delivered.

Being occupied with scientific work and the anxious cares of practice, Dr. Farre did not appear much in public, or take part in the discussions of Medical Societies. The single exception he made was during the notable debate at the Obstetrical Society in 1875, on Puerperal Fever. Being an honorary Fellow, he thought honour implied obligation, and he composed a lucid address on this much-perplexed subject, which he delivered to a most attentive audience, and which is one of the most valuable contributions preserved in the Transactions of the Obstetrical Society.

Dr. Farre lived most of his active professional life in Hertford-street, Mayfair. Here he had the grievous misfortune to lose his wife, to whom he was greatly attached. Here also he was overtaken by that severe surgical accident which compelled him eventually to relinquish practice. Having no children, he hereafter determined to locate himself in bachelor's quarters in Victoria-street, where he was visited by many old friends, and where eventually he died.

At the time of his death he had been so long out of practice that he came to be regarded by the world as a physician of a past generation, and so many of his more intimate friends had dropped off or were invalided that he seemed in a sense isolated, if not lonely. Those of his more intimate acquaintances, however, who had known him in earlier days, and who cherished a personal regard for him, paid him occasional visits, and were warmly welcomed. Among his intimate friends was Professor Sir Richard Owen, and between the two, such close relations were kept up to the end, as were possible between these aged men, who were both more or less invalids, Dr. Farre, so long as he was able, going to dine from time to time with the professor at East Sheen.

Dr. Farre was habitually courteous in manner, both in his relations with his patients and in consultation with his *confrères*. He was a gentleman in the best sense of the word—considerate of the feelings of others, and never inflicting pain, as do some honest people, who speak their minds brusquely though with the best intention. If his manner was by some regarded as formal, it was but the outcome of a cultivated precision in thinking and speaking, and because he was thoroughly imbued with the dignity of his calling, and not from any sense of personal importance. He was punctilious in the arrangement of his work, and constantly punctual in the keeping of his appointments. Being an earnest worker himself, he had proved himself an able and impressive teacher; and when at length he ceased to teach, and was placed on the governing Council of King's College, he was most conscientious in the exercise of his patronage and in his desire to do his best for the institution. On retiring from practice he presented his valuable collection of obstetric and other books to the Royal College of Physicians, where they form a separate section with his name attached. At the same time he bestowed on the Obstetrical Society a valuable series of pelves and gynæcological casts, which form a distinct feature in its museum,

The social side of Dr. Farre's character should not be lost sight of in writing a memorial of him. He was a regular attendant at the St. Alban's dinners, and was very proud of his admission to the very exclusive College Club. He had a great love for music, and being a good musician himself, and having a good voice, he often charmed his friends at their houses and his own, either by playing or joining in some part song. He was, besides, an expert photographer, and possessed a large amount of photographic apparatus, with which he amused both himself and his friends.

He was buried at Kensal Green on Dec. 22nd. His funeral, which was a most unostentatious one, was attended only by the relatives and a few personal friends, together with Dr. John Williams, the president, and Dr. Champneys, the secretary, as representing the Obstetrical Society. Among the wreaths surrounding the coffin was a magnificent one forwarded by their Royal Highnesses the Prince and Princess of Wales, sent "as a token of sincere friendship and regard."

Medical News.

SOCIETY OF APOTHECARIES.—The following gentlemen, having passed the qualifying examination in Medicine, Surgery, and Midwifery, have received certificates entitling them to practise in the same, and have been admitted as Licentiates of the Society.

Coulton, John James, Pentney, Swaffham, Norfolk.
Hearnden, Ernest Morgan, Down House, Sutton, Surrey.
Hicks, John Sydney, Church-street, Falmouth.
Jenkinson, J. A., St. Mary's-road, Crumpsall, Manchester.
Lakeman, Thomas, Claylands-road, Clapham.
Levy, Harry, Gregory Boulevard, Nottingham.
Norris, Oliver, Sherburn, York.
Randall, Philip. N., Hawthornden, South Wimbledon.
Warry, J. K., Elizabeth Cottage, Shooter's-hill, Woolwich.
Tunnicliffe, Edwin Thomas Moose, Riversles, Woodside Park.
Spear, George, St. Mary's-terrace, Paddington.

The following gentlemen passed the Surgical portion of the examination:—

Ducket, Charles Alexander, University College.
Moles, Frederick P., Owens College, Manchester.
Pym, Charles Brownlow, St. Bartholomew's Hospital.
Cooper, Henry Scarborough, Westminster Hospital.
Hiley, Richard Farrar, St. Thomas's Hospital.
Hurst, Walter, Owens College, Manchester.

The following gentlemen passed the Medical portion of the examination:—

Bampfylde, James, Guy's Hospital.
Hildyard, Nathaniel, University College.
Sleman, Richard Reginald, St. Mary's Hospital.

THE extension of the Bristol Eye Hospital, at a cost of between £3000 and £4000, is about completed.

ON the 2nd inst., a cottage hospital in connexion with the local dispensary was opened at Retford.

A QUARANTINE cottage in connexion with the Bournemouth Sanitary Hospital is reported to be almost ready for occupation.

IT is stated that the advisability of taking steps to acquire the control of the waterworks of the town is now being considered by the Corporation of Folkestone.

ON the 28th ult. the Thomas Knight Memorial Hospital was formally opened at Blyth by the Hon. Lady Ridley.

THE third annual ball in aid of the funds of the Bootle Borough Hospital took place on the 28th ult., and proved, as in former years, highly successful.

A NEW district home in connexion with the Manchester Sick Poor Nursing Institution has just been opened.

FRENCH HOSPITAL AND DISPENSARY.—M. Waddington, the French Ambassador, has informed the committee of this institution that the Government of the Republic has made a donation of £2000 towards the building fund of the hospital. M. Waddington has added a personal donation of £100.

ON the 31st ult. the two wards at the Weston-super-Mare Hospital which are to be known as the Jubilee Memorial Children's Wards were formally opened. The total cost of the alterations to the building is about £400, exclusive of furnishing.

LADY DUFFERIN'S FUND.—The Maharajah of Darbhanga in Bengal has established a hospital and dispensary for female patients near his ancestral seat in the district of Darbhanga, Behar, and is erecting new quarters for its accommodation, at a cost of 55,000 rupees, in connexion with Lady Dufferin's Medical Aid for Women Fund.

ON the 28th ult., Dr. Collingridge, the medical officer of health for the Port of London, obtained at the Thames police court an order for the destruction of about 3,000,000 oranges, which had formed part of the cargo of a steamer which had been sunk in the Thames and submerged for three weeks.

ST. JOHN AMBULANCE ASSOCIATION.—A most successful "First Aid" class for ladies has just been held in Leominster, Herefordshire, under the auspices of the above Association, by Mr. Buss of that town. The candidates, seventeen in number, were all successful, and obtained certificates.

DEATH OF A FOOTBALL PLAYER.—Alfred Mann, a football player living at Bradford, died on 31st ult., as the result of injuries received while playing at football. He was playing for a Manningham team, and during the progress of the match he was hurt in the back, and it subsequently transpired that his kidneys had been ruptured.

AMOY MISSION HOSPITAL AND DISPENSARY.—The third annual report, for the year 1886, of this institution, which is in connexion with the Presbyterian Church of England, has just reached us, and affords a gratifying proof of the popularity of Western Medicine amongst the suffering poor of China. The operations of the hospital, owing to the absence from China of Dr. A. L. Macleish, the medical officer, during the summer, were confined during 1886 to a period of six months. The number of patients treated was 1388, of whom 187 were in-patients, an increase of 25 per cent., and above the number treated in the corresponding period of the previous year. The financial report is also satisfactory, a balance of some 500 dollars being left in the hands of the treasurer.

DECORATION OF FRENCH HOSPITAL NURSES.—M. Carnot, President of the French Republic, on the last day of the old year made a round of inspection of the various Parisian hospitals, in the course of which he decorated with a knight's ribbon Mdlle. Nicolle, the school mistress at the Salpétrière, who is now in her thirty-sixth year of service, and a Sister of Charity in the military hospital of Val-de-Grâce.

ROYAL MEDICAL BENEVOLENT COLLEGE.—A deputation from the council of this institution, consisting of Sir Edward Sieveking, Sir Joseph Fayrer, K.C.S.I., Dr. Holman, Rev. E. W. Northey, M.A., Mr. Propert, Mr. France, Dr. Galton, Mr. Malcolm Morris, Mr. Purnell, and Dr. F. Taylor, attended upon the Lord Mayor at the Mansion House on Saturday, for the purpose of inviting his lordship to preside at the biennial festival dinner of the institution. Sir Edward Sieveking and Dr. Holman (the treasurer) having explained the objects of the College, and expressed the hope of the council to secure influential assistance outside the medical profession, which could not be better done than by obtaining the aid of his lordship as representing the City of London, his lordship intimated his willingness to accede to the desire of the council, and fixed Tuesday, the 17th day of April, as the date of the festival. This will be the first occasion on which the head of the Corporation has presided since 1856, when Sir David Salomons took the chair. Several members of the House of Lords and the present leader of the House of Commons have also presided.

PRESENTATIONS.—On the 25th ult., Mr. A. J. H. Montague, house surgeon at the East Suffolk Hospital, was presented by the day nurses of that institution with a nickel-plated aspirator.——On the 28th ult., Mr. H. Joell was entertained at dinner and presented with an illuminated address and a purse of gold on the occasion of his leaving Killingworth, where he has practised for sixteen years, for Corbridge.—— On the 28th ult., Dr. Thomas Milne was presented with an illuminated address by the members of the Accrington St. John Ambulance class in recognition of his services as lecturer on "First Aid" to the injured.——Mr. R. H. Lacy has been presented by the patients of the South Devon and East Cornwall Hospital, Plymouth, with a brass kettle and egg-boiler, on the occasion of his relinquishing the house surgeoncy to that institution.—— Garnett G. Tatham, M.D., medical officer to the Wigan Union Workhouse and Wigan district for a period of nearly nine years, has, on his retirement, in consequence of ill-health, been presented by the workhouse officials with a handsome silver goblet, as a mark of the esteem in which he was held. The goblet bears the following inscription: "Presented to Garnett G. Tatham, Esq., M.D., by the Clerk, Relieving Officers, and Workhouse Officials of the Wigan Union, on his resigning the office of Medical Officer of the Workhouse and Wigan District, as a mark of their esteem after working with him for nearly nine years. Christmas, 1887."

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ANDERSON, JAMES, M.D., F.R.C.P. Lond., has been appointed Assistant Physician to the National Hospital for the Paralysed and Epileptic, Queen-square, Bloomsbury, vice Dr. Ormerod.

BASTIAN, H. CHARLTON, M.D., F.R.C.P.Lond., F.R.S., has been appointed an extra Physician to the National Hospital for the Paralysed and Epileptic, Queen-square, Bloomsbury.

BEEVOR, C. E., M.D., M.R.C.P.Lond., has been appointed Physician to the Out-patients to the National Hospital for the Paralysed and Epileptic, Queen-square, Bloomsbury, vice Dr. Bastian.

COLYER, JAMES F., L.D.S.Eng., has been appointed House-Surgeon to the Dental Hospital of London.

DICKSON, GEORGE, M.D., has been appointed Dispensary Physician to the Western Infirmary, Glasgow.

HAWTHORNE, CHARLES O., M.B., C.M., has been appointed Dispensary Physician to the Western Infirmary, Glasgow.

JOHNSTONE, WILLIAM, has been appointed Analyst for the Borough of Dartmouth.

LEACH, ALFRED, L.R.C.S., L.S.A., has been appointed Honorary Medical Officer to the St. Gabriel's Hospital for Infants, Grosvenor-road, S.W.

ORMEROD, J. A., M.D., F.R.C.P.Lond., has been appointed Physician to the Out-patients to the National Hospital for the Paralysed and Epileptic, Queen-square, Bloomsbury, vice Dr. Buzzard.

TOOTH, HOWARD, M.D., M.R.C.P.Lond., has been appointed Assistant Physician to the National Hospital for the Paralysed and Epileptic, Queen-square, Bloomsbury, vice Dr. Beevor.

WILLIAMS, ROBERT ARTHUR, M.B., C.M.Ed., has been appointed Medical Officer of Health for the newly-formed Ogmore and Garw Local Board and Urban Sanitary Authority.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

BRIGHTON, HOVE, AND PRESTON DISPENSARY.—Two House-Surgeons. Salary for each £140 per annum, with furnished apartments, coals, gas, and attendance.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's-inn-road.—Three Clinical Assistants. Fee two guineas for six months.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—Resident Medical Officer. Salary £100 per annum, with board, &c.

HOSPITAL FOR DISEASES OF THE HEART AND PARALYSIS, Soho-square, W.—Anæsthetist.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, W.C.—Clinical Assistant in the Out-patient Department.

HOSPITAL FOR WOMEN, Soho-square, W.—Two Clinical Assistants in the Out-patient Department. Fee for course of three months, £5 5s.

RADCLIFFE INFIRMARY, Oxford.—House-Surgeon. Salary £80, with board, lodging, and washing.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Assistant in the Pathological Department of the Museum.

ROYAL SURREY COUNTY HOSPITAL, Guildford.—House-Surgeon. Salary £80 per annum, with board, lodging, and washing.

STOURPORT FRIENDLY SOCIETY'S MEDICAL ASSOCIATION.—Resident Medical Officer. Salary £170 per annum, with unfurnished residence, free from rent and rates, together with part midwifery and vaccination fees.

SUSSEX COUNTY LUNATIC ASYLUM, Hayward's-heath.—Medical Superintendent. Salary £800 per annum, with furnished house, coals, gas, vegetables, milk, and washing.—Junior Assistant Medical Officer. Salary £100 per annum, with board, lodging, and washing.

Births, Marriages, and Deaths.

BIRTHS.

BRADSHAW.—On the 29th ult., at Sulgrave, Banbury, the wife of James Charles Bradshaw, L.R.C.P., L.R.C.S., of a son.

GARROD.—On the 28th ult., at Chandos-street, Cavendish-square, the wife of Archibald E. Garrod, M.D., of a son.

MACKINNON.—On the 8th ult., at Anderson's-road, Madras, the wife of Surgeon-Major H. W. A. MacKinnon, Army Medical Staff, of a son.

MENDS.—On the 24th ult., at the Royal Hospital, Haslar, Gosport, the wife of Bowen Stilon Mends, Surgeon, Royal Navy, of a daughter.

MURIEL.—On the 2nd inst., at Scotch-street, Whitehaven, the wife of G. J. Muriel, M.R.C.S., of a daughter.

MARRIAGES.

BRYANT—TIDY.—On Nov. 19th, 1887, at St. Luke's Church, Adelaide, South Australia, Henry William Bryant, L.R.C.S., L.R.C.P.Ed., to Evelyn Mary Tidy, of Shirley, Croydon, third daughter of the late John Tidy, of Coney Hall, West Wickham, Kent.

CLARKE—SYNYER.—On the 28th ult., at the Parish Church, St. Marylebone, by the Rev. Grant E. Thomas, John Henry Clarke, M.D., of 34, Harrington-road, S.W., to Helen, eldest daughter of Henry Synyer, Esq., of King's-heath.

PAUL—GREG.—On the 3rd inst., at All Saints', Knightsbridge, London, Frank Thomas Paul, F.R.C.S., of 38, Rodney-street, Liverpool, to Lucy Geraldine, second daughter of Rustace Greg, Esq., of 21, Kensington-gore, London.

THOMSON—LOUGH.—On the 29th ult., at St. Michael and All Angels' Church, Portsmouth, Wilfred Burrell Thomson, Army Medical Staff, to Charlotte Eleanor, eldest daughter of the Rev. J. Lumley Lough, Rector Paget and Warwick, Bermuda.

DEATHS.

FOLWELL.—On New Year's Eve, at Gloucester-street, Belgravia, S.W., William Folwell, L.R.C.P.Ed., M.R.C.S., aged 67.

SCOUGAL.—On the 31st ult., suddenly, Clara, wife of Edward Fowler Scougal, M.B., of Huddersfield, at the age of 34.

N.B.—A fee of 1s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

Monday, January 9.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M. and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M; Thursday, 2.30.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.—8 P.M. Mr. A. T. Underwood: Erosion in connexion with some Points in the Minute Anatomy of Enamel.—Mr. T. J. Hutchinson: A Note on Erosion.—The President's Valedictory Address. The Election of Officers will also take place.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Mr. E. Hurry Fenwick: On the Reflex Inhibitory Action of Cocaine as a Diagnostic Factor.—Mr. F. Treves: On the Treatment of Carotid Hæmorrhage.—Mr. Bowreman Jessett: A case of Gastro-anterostomy and a case of Duodenostomy for Carinoma of Pylorus.

Tuesday, January 10.

GUY'S HOSPITAL.—Operations, 1.30 P.M. and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Dr. W. B. Cheadle and Mr. Thomas Smith: A case of Occlusion of the Left Bronchus by a Metal Pencil-cap, and its removal by Tracheotomy.—Mr. Alexander Haig: Influence of Salicylic Acid and its Salts on the Excretion of Uric Acid.

Wednesday, January 11.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 3 P.M.; Saturday, 1 P.M.

CHILDREN'S HOSPITAL, GREAT ORMOND-ST.—Operations, 9 A.M.; Saturday, same hour.

SOCIETY FOR THE STUDY OF INEBRIETY.—4 P.M. Dr. Norman Kerr: The Etiology of Inebriety.

EPIDEMIOLOGICAL SOCIETY OF LONDON.—8 P.M. Discussion of Dr. Klein's paper on "Some of the Infectious Diseases common to Man and the Lower Animals.

HOSPITALS ASSOCIATION.—8 P.M. Dr. J. H. Aveling: On the Amelioration of the Present Condition of Midwives.

HUNTERIAN SOCIETY.—8 P.M. Dr. Fletcher Beach: On some of the Uncommon Causes of Imbecility.

BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Annual Meeting. President's Address. Specimens will be exhibited by Drs. R. T. Smith, Bedford Fenwick, G. Granville Bantock, and others.—Mr. Bland Sutton: On the Nature of the Hymen—supplementary remarks. Council at 8 P.M.

Thursday, January 12.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

Friday, January 13.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

CLINICAL SOCIETY OF LONDON.—8.30 P.M. Annual Meeting. Report of Council; Election of Officers. Dr. Maclagan: Cases of Obstruction of the Bowels by large Gall-stones.—Mr. Clutton: Laparotomy for Obstruction from Gall stone; Recovery.—Mr. Pearce Gould: A case of Gall-stones, illustrating their Spontaneous Fracture; Subsequent Suppuration and operation; Recovery.—Dr. Stephen Mackenzie: Case of Sporadic Cretinism (living specimen).

Saturday, January 14.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, January 5th, 1887.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Dec. 30	30·17	N.	37	36	45	40	31	...	Overcast
,, 31	30·22	N.W.	37	36	44	39	35	...	Overcast
Jan. 1	29·81	E.	30	...	45	42	26	...	Fine
,, 2	29·39	W.	42	41	57	46	29	...	Cloudy
,, 3	29·92	W.	36	35	56	48	34	·24	Hazy
,, 4	30·00	S.	43	40	50	46	35	...	Cloudy
,, 5	29·70	S.	45	44	...	...	41	...	Cloudy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

THE LANCET DURING 1887.

WE have received the following interesting account from a medical correspondent of the work of THE LANCET during the past year, and thinking it might prove interesting to our readers we, after carefully testing the accuracy of the figures, publish it. From the figures submitted it appears that THE LANCET during 1887 contained 11,744 columns, of which 5404 were devoted to literary matter and 6340 to advertisements. The ordinary size of the journal is 96 pp., but such a number was issued only three times, the sizes of the others being as follows:—104 pp. 13 times, 112 pp. 30 times, 120 pp. 5 times, 128 pp. once, and 144 pp. once. The columns of literary matter were occupied as follows: Reports of 84 lectures, 572 cols.; 277 original articles, 741 cols.; 126 clinical notes, 86 cols.; 141 mirror cases, 223 cols.; 194 meetings of 30 different medical societies, 345 cols.; reviews and notices of 240 books, 144 cols.; the analytical record of 57 articles, 9½ cols.; notices of 49 new inventions, 24 cols.; 232 leading articles, 461 cols.; 1795 annotations, 836 cols.; public health, 114 cols.; sanitary commissions, 10½ cols.; 92 drugs under the heading of Pharmacology and Therapeutics, 20½ cols.; 566 special articles, 626 cols.; 802 letters from correspondents, 495 cols.; and 76 obituary notices of deceased members of the medical profession, 58 cols. In addition some 90 cols. were devoted to the report of the proceedings of the General Medical Council; 37 to the British Medical Association; 20 to various congresses, and the remainder to medical news and other miscellaneous information interesting to members of the medical profession.

Mr. W. D. Jones.—Illustrated Lectures on Ambulance Work, by R. L. Roberts, first edition (published by Lewis). Accidental Injuries, &c., by J. Cantlie (Clowes and Son). Shepherd's First Aid to the Injured, revised edition (by the St. John Ambulance Association).

C. J. W.—The subject has been more than once discussed in our pages: for example, THE LANCET, vol. ii., 1884, pp. 159, 735.

MEDICAL DEFENCE.

To the Editors of THE LANCET.

SIRS,—Having read your remarks on the recent case of an action to extort money from a medical practitioner, which happily failed, I fully endorse your opinion that a medical defence association is the one thing required to meet all cases of attempted imposition by misrepresentation on medical men, and am quite willing to subscribe towards the formation of such a fund. I am, Sirs, yours truly,

Pontefract, Dec. 28th, 1887. A COUNTRY GENERAL PRACTITIONER.

A ROMAN SANATORIUM.

THE necessary excavation for the erection of new mineral baths at Suzo, about six miles from Castelforte, has led to the discovery of what proves to be the remains of old Roman mineral baths there, and the supposition is that the group of buildings formed a hospitium or inn for the bathing guests—that is to say, a hostelry for those staying for purposes of cure. The finding of coins of Augustus's and Vespasian's period, and of Arabian and Norman gold coins, tends to show that the sanatorium must have existed and flourished for a considerable time.

Vides.—No person who is a member of the medical profession, or who is practising under right of any degree from a university, or under any diploma or licence from a medical or surgical body, can be registered under the Pharmacy Acts. An apothecary cannot therefore practise legally as a chemist. On the other hand, nothing in the Pharmacy Acts affects the rights of apothecaries, including that of supplying medicines to patients.

Mr. G. Brook had better make application to the writer of the letter. The address in question is unknown to us.

Dr. W. J. Seward.—1. Mr. Schramm, 6, Princes-street, Cavendish-square.—2. 28, Finsbury-circus.

OVERCROWDING OF THE PROFESSION AND LOW CHARGES.

To the Editors of THE LANCET.

SIRS,—An article in a recent number of THE LANCET on "Touting Practitioners" brings before one the fact that, as anyone who keeps his eye on the pass-lists must see, the profession is getting enormously overcrowded. In this article it is, I presume, the advertising you so justly condemn, and not so much the low fees. Indeed, it is difficult to see how these can be avoided. The man who is trying to work up a practice will rather—and it is surely better for him that he should—see patients for very small fees than sit idle, getting rusty. Moreover, if, as everyone will acknowledge, a man must begin at the bottom of the ladder, he must be content to charge small fees. And nowadays there are so many ways—the parish, clubs, medical aid societies, dispensaries, private medical clubs, to say nothing of the general hospitals—for providing medical attendance to the poorer and labouring classes that it is only by small charges a man has any chance of attending these, unless, indeed, he happen to be the "medical officer." Medical aid societies are spreading to an extent which must be alarming to the struggling beginner. A medical aid society will, quite unasked for, open a branch in a district, and enrol on its list of members families that have previously paid their doctors' bills. Is there anything unprofessional in a man giving attendance and charging very little, rather than that the patient should go elsewhere and be attended gratis or nearly so; or, if he himself happen to hold the "union" or be attached to a medical aid society, in his preferring to treat them as private patients paying very little, instead of being obliged to attend them for the 1*d.* per week, or on a parish order?

I am, Sirs, yours truly,

Jan. 2nd, 1888. AN ONLOOKER.

QUALIFICATIONS FOR COUNTY ASYLUM APPOINTMENTS.

To the Editors of THE LANCET.

SIRS,—An advertisement appeared in THE LANCET of last week, for a medical superintendent to the Sussex County Asylum, which post became vacant by the resignation of Dr. Williams. The advertisement states: "According to the Rules of the Secretary of State the Medical Superintendent must be a Doctor of Medicine of a University in the United Kingdom, and a Fellow, Member, or Licentiate of the College of Physicians of London, Edinburgh, or Dublin." As it is not usual for a medical man to possess both these qualifications, obviously this must debar several candidates who are in other respects fully qualified from competing; and on going through a list of assistant medical officers of asylums in England and Wales from whose ranks it is reasonable to suppose that a medical superintendent should be chosen, I find that none (and, indeed, only three or four superintendents) possess the necessary assortment of qualifications to enable them to compete. Doubtless this is simply the result of an oversight on the part of those who drew up the rules, and only requires public notice to cause the mistake to be remedied, and so remove a hardship to those who, like myself, can sign themselves,

Yours faithfully,

AN ASSISTANT MEDICAL OFFICER,
January, 1888. M.D., M.Ch., M.R.C.S., L.S.A.

*** The qualifications our correspondent appends should surely be sufficient to enable him to become a candidate for the post of medical superintendent of a county asylum. The rule complained of was probably framed many years ago.—ED. L.

PORK EATING AS A CAUSE OF CANCER.

To the Editors of THE LANCET.

SIRS,—Will any correspondent inform me if there are any data proving that pork-eaters are more prone to cancer than others. Is this proved by the case of the Jews in this country? or is it true of the inhabitants of hot countries where pork is not eaten.

I am, Sirs, yours truly,

January, 1888. VERITAS.

THE HESSIAN FLY AND ITS PARASITES.

WITH regard to the Hessian fly some new and interesting particulars are given in an appendix to Miss Ormerod's pamphlet on this pest. Prof. Fream announced in the summer that with the fly had come one of its most deadly parasites. Miss Ormerod has hatched a number of these parasites, which have been identified by Prof. C. V. Riley and Dr. Lindeman. Seven distinct parasites have been already identified and, strange to say, they are not only all Russian, but comprise all the parasites known to Dr. Lindeman. The suspected Russian origin of the pest is thus confirmed, as well as the welcome fact that its advent has been accompanied with that of its deadly enemies.

Bagnal.—The appointment of registrar of births and deaths is in the hands of the guardians of the poor for the union or district in which the vacancy occurs, subject to the approval of the Registrar-General. The present general tendency of guardians, especially in rural districts, is to bestow these appointments upon their relieving officers.

W. O. T.—Yes.

THE LEICESTER AND LEICESTERSHIRE PROVIDENT DISPENSARY.

To the Editors of THE LANCET.

SIRS,—In an annotation in your issue of Dec. 24th last *re* the above institution a question is asked as to the proportion of the receipts falling to the lot of the medical staff. By the annual statement, Dec. 31st, 1886 (statement enclosed), I see that the medical officer (Mr. Meadows, M.B.) heads the list of receipts with £472 4*s.* 4*d.* Each member subscribes to the doctor 1*s.* 9½*d.* yearly (to be attended 365 times if necessary). The medical officer has his qualified assistant, horse, carriage, &c. to provide. Now deduct the working expenses. The question is—and it has yet to be proved—what the secretary really does receive. It is admitted by his own side to be about £700; whilst, on the other hand, the Rev. A. A. Isaacs and the public generally are inclined to call it £1000 or over. Contrast the work of the two officers—the doctor and the secretary. This dispensary is nursed and paternally cared for by some of the leading practitioners in Leicester. During the last two years it has imported four new medical men—Mr. Sharman, M.B.; Mr. Barlow, M.B.; Mr. Young, M.B.; and Mr. Nuttall, and is likely to import another one, as at the last meeting of the governors the post now vacant by the resignation of Mr. Greasley had after advertisement been applied for by one medical gentleman, who unfortunately did not appear.

I am, Sirs, yours faithfully,

Leicester, January, 1888. ERNEST HAYDON, M.B., C.M.

P.S.—I am not a disappointed candidate; for, practising in Leicester since 1883, I have never applied for an appointment. If ever I had occasion so to do, it would most certainly be for that of the secretaryship, and not as a medical officer.

To the Editors of THE LANCET.

SIRS,—In your issue of last week you draw attention to the Leicester and Leicestershire Provident Dispensary, and remark that there was some difficulty experienced in carrying the resolutions for an inspection into the management of that institution. I may state that the resolutions were carried by a large majority, without any amendment whatever being proposed. Public contributions are made in churches and chapels in aid of this charity. The doctors give their services almost gratuitously. Why, then, should the manager have a salary of £1000 a year, as stated, which is a remuneration exceeding those of the borough surveyor, the engineer of the waterworks, the borough and county analysts, the medical officer of health, and other town officials, when his services are more or less of a nominal character, and when a gentleman here offered to do the work for £200 per annum? The manager, however, appears to have so ingratiated himself with the board of directors that his removal or a reduction of his salary seems well-nigh impossible, though why one solitary official should absorb about one-fifth of the receipts is not at all evident to ordinary mortals.

Ventilation of this question in your important and well-known journal would be of general utility to public institutions throughout the country.

I am, Sirs, your obedient servant,

January, 1888. A RESIDENT.

ROUND SHOULDERS.

To the Editors of THE LANCET.

SIRS,—May I ask, through the medium of your valuable journal, from some kindly-disposed brother practitioner, answers to the following questions, and any information relating thereto which may be deemed useful?

I am suffering slightly from round shoulders (of recent date), which complaint appears to be on the increase, but I am thankful to say due to no lung or spinal disease, and therefore, I trust, may be easily remedied. (1) What kind of braces or shoulder-straps should be worn, in order to carry the shoulder back, and at the same time not interfere with professional work, &c.? (2) What precautions ought to be taken in the selection of such an appliance? (3) If any, what dangers are to be avoided in the use of the same?

I am, Sirs, yours faithfully,

January, 1888. OVER GRATEFUL.

*** No shoulder straps or braces are to be relied on in such a case. The remedy must be found in dumb-bell exercise, and care in sitting with the shoulders well drawn back.—ED. L.

INCOMPATIBILITY IN PHARMACY.

To the Editors of THE LANCET.

SIRS,—Several prescriptions have lately come under my notice in which occurs a mixture of chlorate of potash and syrup of iodide of iron. This seems a not unreasonable combination, and its incompatibility does not suggest itself, nor will it be found on reference to ordinary text-books. As, however, a case has recently been reported from Australia in which death resulted from the administration of such a mixture, I think it desirable that the attention of prescribers and dispensers should be drawn to the fact that chlorate of potash liberates the whole of the iodine from iodide of iron, and if at all concentrated the solution soon becomes saturated, and crystals of iodine are deposited after a few hours. The products of the decomposition are shown by the following equation:—$2FeI_2+KClO_3+H_2O=Fe_2O_3.H_2O+2I_2+KCl$. Further details of the reaction may be found in the *Pharmaceutical Journal*, vol. x., p. 850, and in the *Journal of the Chemical Society*, 1880, vol. xxxviii. Heat favours the reaction, and the process, which may be slow in the medicine bottle, would be much more rapid in the stomach, where the development of nascent iodine might produce symptoms of gastric irritation which were neither expected nor desirable.

I am, Sirs, yours very truly,

Clifton-road, W., January, 1888. R. H. PARKER.

Mr. John Hopkins.—Our correspondent is certainly entitled to the fee in point of reason and, we think, in point of law. He fulfilled his part of the contract, and that at much inconvenience to himself.

"A WARNING."

To the Editors of THE LANCET.

SIRS,—The letter of Dr. Thursfield in your last issue reminds me of a very similar circumstance which occurred to me some eighteen months or two years since. The individual in question, whose *modus operandi* was almost identical with that mentioned by your correspondent, called upon me about midday, stating that he was a carpenter by trade and working for the principal contractor in this town (a patient of mine), who wished me to examine him, as he was ruptured, and supply him with a suitable truss, for which he (the contractor) would pay. At the same time he asked for a certificate to take to his employer. After the man had left I called upon the contractor and stated the circumstance, preparatory to ordering the truss, and then discovered that the man was an impostor. I immediately reported the case to the superintendent of police, who informed me that the man had actually called upon him at the police station, using my certificate for begging purposes, and had it not borne my signature he would have detained him. As it was, the man departed, and doubtless utilised the certificate in this neighbourhood, repeating his ingenious operation as often as occasion required.

I am, Sirs, yours truly,

Clare, Suffolk, Jan. 2nd, 1888. EDWD. A. PIGGOTT, L.R.C.P.

S.—The answer to the question of our correspondent must depend upon the circumstances, such as the severity of the cases under treatment, &c. A ward intended for uterine or abdominal surgery certainly ought not to be in direct communication with another ward.

P. B. will find his question answered in another column.

ERRATUM.—In the 28th line of the Section headed "Medical Societies" in our annual retrospect, page 1328, for "Primary Nerve Suture, by Mr. Rowe," read Primary Nerve Suture, by Mr. Wm. *Rose*.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Playfair, London; Dr. McKeown, Manchester; Mr. Burnett; Dr. Byrom Bramwell, Edinburgh; Dr. Bartley, Ipswich; Mr. J. Ross, King William's Town; Mr. Maunsell, Sherborne; M. Nichol; Mr. Kinsey, Bedford; Mr. J. W. Smyth, London; Mr. C. O. Birch, London; Mr. W. D. Jones; Mr. Barber; Dr. D. Ferrier, London; Mr. Jordan Lloyd, Birmingham; Mr. R. M. Johnston, Hobart; Messrs. Cornish Bros., Birmingham; Dr. F. E. Wilkinson, Leamington; Dr. Norman Kerr, London; Dr. Joshua Williams, Sheffield; Messrs. Blenheim and Co.; Dr. Park, Glasgow; Dr. S. Borel, London; Messrs. Blake and Co., Leeds; Mr. Cheshire, Birmingham; Mr. W. Rowlands, Great Crosby; Mr. Piggott, Clare; Dr. Holman, London; Dr. Tennant, Ben Rhydding; Mr. Addinsell, London; Mr. Richard; Messrs. Mason and Co., London; Mr. Fuge, Taunton; Mr. W. Thwaits; Messrs. Dewar and Son; Dr. C. B. Taylor, Nottingham; Mr. G. W. Hambleton, London; Mr. W. J. Walsham, London; Mr. W. H. Haw, Wednesbury; Mr. H. J. Bdck, Clapham; Mr. R. J. Cæsar, Wellington; Dr. Taylor, Windermere; Mr. Petter, Yeovil; Mr. Palmer, Peterboro'; Mr. W. Ford, Cork; Mr. A. Felmann, Peross; Mr. Thring; Mr. Wedgwood, Banbury; Mr. J. Curtis, Portsmouth; Mr. Halse; Mr. Carter; Dr. le Dewe, Paris; Dr. Biswas, Calcutta; Dr. Grime, Blackpool; Mr. B. Roope, Belfast; Dr. Coghill, Birmingham; Dr. Fox, Lee; Dr. R. Jones, Conway; Mr. Craven, Nantes; Dr. Ginn, Omagh; Dr. Heelas, Nottingham; Mr. Barrett, Sheffield; Dr. Jeaffreson, Newcastle; Dr. Benthall, Southsea; Dr. Hanker, Glasgow; Dr. Harmen, Beyreuth; Mr. Simpson, Dumbarton; Mr. Graham, Canada; Mr. Rose, Guildford; Dr. Taylor, Windermere; Mr. Kershaw; Mr. McMurray, Wandsworth; Dr. Aplin, Nottingham; Dr. Anderson; Mr. Fogarty, London; Mr. Saunders, Manchester; Mr. Caldewood; Dr. Watteville; P. Deleason; S. M.; Microscope; The *Canada Lancet*, Toronto; An Onlooker; S.; Veritas; H. D. F.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Russell, Liverpool; Mr. Whitford; Messrs. Maguire, Cork; Messrs. Evans and Wormull, London; Dr. Michelmore, Tiverton; Messrs. Reynolds and Branson, Leeds; Mr. Horder; Dr. Nicholl, Buckie; Dr. Kirkland, Chalfont; Mr. R. S. Leggatt; Dr. Hentsch, Hamburg; Mr. James, Aylesbury; Mr. Underwood; Mrs. Manley; Mr. Rose; Mr. Brookes, Wellington; Mr. Orme, Leigh; Dr. Bradshaw, Banbury; Mr. Brown, London; Mr. Stilliard, Birmingham; Dr. Garstang; Mr. Burcombe, Lincoln; Mr. Carr; Mr. Willoughby; Mr. Williams; Dr. Morovine, Cyprus; Dr. V. E. Stais, Athens; Dr. North, Veeling; Mr. Birchall, Liverpool; Dr. Ralph, Burton-on-Trent; Mr. Hensman; Mr. Raven, Broadstairs; Mr. Greenling, Burton-on-Trent; M. Spartali, Rome; Mrs. Hodgkin, London; Mr. Cooper, Grantham; Mr. Blomfield, Bicester; Mr. Cann, Dawlish; Mr. Morris, Ashford; Messrs. Liberty and Co.; Mr. Briggs; Mr. R. Ellis, Newcastle; Mr. Logan, Isle of Ornsay; Mr. Heywood, Manchester; Dr. Arnison, Allendale Town; Mr. Hardy, Maidstone; Mr. Oswald; Mr. Fraser; Dr. Miltiade Logetheti, München; Mr. Goodwin; Mr. Murray; Mr. Bronckley, Stourport; Mr. Purvis, Northampton; M. Saussure, Billancourt; Mr. R. Waterson; Timour; L. A. H.; A. R.; A. D.; Medicus, Nottinghill; J., Leamington; A. B., Lewisham; T. W. F.; Doctor; Fortiter; C. L.; F.R.C.S., Hampstead; L. W.; T., Oldham; Fides; M.A., South Molton; Edgar; R. B.; Medicus, Islington; Sanitas; R. J.; Alpha, Glamorganshire; Medicus, Nottingham; L. M.; H. D. F.; R. M., Wingham; Birogoff; G. E. F.; Physician; M.R.C.S., York; A. C. C., Southsea; Ac Vergo.

South Wales Daily News, *Newcastle Chronicle*, *Hants and Dorset Observer*, *Hobart Mercury*, *Illustrated Sydney News*, *Nursing Notes*, &c., have been received.

SUBSCRIPTION.

POST FREE TO ANY PART OF THE UNITED KINGDOM.

One Year ..... £1 12 6 | Six Months..... £0 16 3

To CHINA AND INDIA.....One Year 1 16 10

To THE CONTINENT, COLONIES, AND UNITED STATES ..... Ditto 1 14 8

Post Office Orders and Cheques should be addressed to The Publisher, THE LANCET Office, 423, Strand, London, and crossed "London and Westminster Bank, St. James's square."

ADVERTISING.

Books and Publications (seven lines and under)... ...	£0	5	0
Official and General Announcements	0	5	0
Trade and Miscellaneous Advertisements	0	4	6
Every additional Line	0	0	6
Front Page... ... ... per Line	0	1	0
Quarter Page	1	10	0
Half a Page	2	15	0
An entire Page	5	5	0

The Publisher cannot hold himself responsible for the return of testimonials, &c., sent to the office in reply to advertisements; copies only should be forwarded.

NOTICE.—Advertisers are requested to observe that it is contrary to the Postal Regulations to receive at Post-offices letters addressed to initials only.

An original and novel feature of "THE LANCET General Advertiser" is a special Index to Advertisements on page 2, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to Advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed.

Advertisements are now received at all Messrs. W. H. Smith and Son's Railway Bookstalls throughout the United Kingdom and all other Advertising Agents.

Agent for the Advertising Department in France—J. ASTIER, 66, Rue Caumartin, Paris.

NOTICE.—JOHN JAMES CROFT is no longer Publisher, or in any way connected with the Publishing or any other Department of THE LANCET. All business communications should be addressed to "Publisher, THE LANCET Office, 423, Strand, London." Post Office Orders and Cheques should be crossed "London and Westminster Bank, St. James's-square."